# DANVILLE TRANSIT TRANSIT DEVELOPMENT PLAN: FISCAL YEARS 2010-2015

**Prepared for:** 



Prepared by:



**Under Contract to:** 



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### 1.0 OVERVIEW OF DANVILLE TRANSIT

The City of Danville is located on the border of Virginia and North Carolina, northeast of Greensboro, NC. The city's population was 45,586 in the 2000 census. The U.S. Census' 2007 population estimate for Danville is 44,947. Danville's primary economic industries have historically been in the in the tobacco and textile sectors. Over the past several years the City has transitioned to a more diverse economy, with several new businesses located on the east side of the city, such as Telvista, Nestle and Swedwood/IKEA.

### 1.1 Transit History

Danville Transit is a small urban transit system that was established as municipal service in 1977. Transit service is provided only within the city limits of Danville. Until 1992 the City of Danville relied on general funds, state aid and passenger revenue to support operating and capital needs. Since 1992, Danville Transit has been the recipient of federal funds.

Transit demand in Danville is greatly influenced by employment activity, disposable income, fuel prices, trip distances and vehicle availability. Parking and traffic congestion do not represent significant impacts on local transit demand. Danville Transit's customer base has remained fairly constant over time. Danville Transit has been successful in adjusting its service to support the City's transitioning economy by implementing a Reserve-A-Ride program in 2001. The Reserve-A-Ride program provides transit services in time periods when fixed route service would be marginally effective (i.e., early morning and late evening).

One of the more recent milestones achieved by Danville Transit has been the opening of the 2,000 square foot intermodal bus facility in downtown Danville (called the "Hub"). Construction on this facility began in September 2006 and opened October 2007. This facility is shared with Greyhound Lines, Inc.

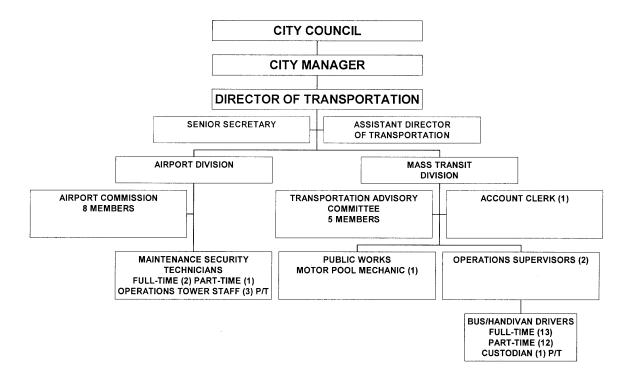
### 1.2 Organizational and Governance Structure

Danville Transit is a division under the city's Transportation Services Department (Figure 1-1). Danville Transit maintains a Transportation Advisory Committee that is comprised of seven members including the City Manager and a City Councilman. The committee reviews all grant applications, planning documents, proposed service changes and fare adjustments. Danville Transit is managed by the Director of Transportation Services. Remaining staff includes the Assistant Director, an account clerk, senior secretary, two operations supervisors, bus operators and maintenance personnel.

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### Figure 1-1 Danville Transit Organizational Structure

### TRANSPORTATION SERVICES



The City of Danville Virginia has a council-manager form of government. The Danville City Council is comprised of nine (9) persons, elected at-large for four (4) year staggered terms.

The City Council elects the Mayor and Vice-Mayor from its membership and these officials serve two-year terms. The Mayor and Vice Mayor for the 2008-2010 term are as follows:

Mayor: Sherman M. Saunders Vice Mayor: T. Wayne Oakes

City Council conducts its monthly business meetings on the first and third Tuesday at 7:00 p.m. in City Council Chambers, 4th floor, Municipal Building, 427 Patton Street, in downtown Danville.

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### 1.3 Transit Services Provided and Areas Served

Danville Transit (DT) is a municipal transit system that operates exclusively within the city limits of Danville, Virginia. Danville Transit provides fixed route service (11 fixed routes), Reserve-A-Ride service and paratransit (Handivan) service. Transit service operates six days a week (Monday-Saturday). Each type of service is described below.

### Fixed Route Service

Danville Transit operates the following fixed route service Mondays through Saturdays, from approximately 6:00 a.m. to 6:00 p.m.:

### Route 1 - New Design - Nor-Dan

This route operates from the Hub in downtown Danville north to the Nor-Dan shopping center, primarily along North Main Street. Outbound service makes a deviation to Richmond Blvd., Hwy 360 and Bradley Road.

### Route 1 - Kemper Road-DCC

This route operates from the Hub in downtown Danville south to the Health Department. This route has a "figure 8" alignment, with outbound service primarily along Stokes and Watson, and inbound service along S. Main and Holbrock. This route provides service to the Danville Community College, the Health Department and to the Danville Regional Medical Center.

### Route 2 - Third Ave. - Nor-Dan

This route operates from the Hub in downtown Danville north to the Nor-Dan shopping center, primarily along N. Main, Washington, Third Ave., Arnett and Melrose. This route also provides service to Sterling Trace Apartments and limited service to Janie's Hope apartments off of Piney Forest Road.

### Route 2 – Edgewood-Stokesland

This route operates from the Hub in downtown Danville south to Carter's Store on West Main Street, near Hwy 29. Averett University and the Danville Regional Medical Center are served by this route.

### Route 3 – Danville Estates – Nor-Dan

This route operates from the Hub in downtown Danville north to the Nor-Dan shopping center. This route has a loop configuration, with inbound buses serving the Sterling Trace Apartments and the Virginia Employment Commission off of Piney Forest Road.

### Route 3 – Edgewood-Stokesland

This route operates from the Hub in downtown Danville south to West Main/Edgewood Drive. On weekdays, this route includes a mid-route deviation to the Coleman Marketplace and Piedmont Mall shopping area. On Saturdays, this route does not include this deviation, but instead continues south on W. Main to Carter's Store, near Hwy 29.

### Route 4 - Temple Terrace - Nor-Dan

This route operates from the Hub in downtown Danville north to the Nor-Dan shopping center. This route's alignment is the same as Route 1's alignment.

### Route 4 - Health Center - DCC

This route operates from the Hub in downtown Danville south to the Danville Community College and Health Department. This route has a loop configuration.

### Route 5 – Piedmont Mall-Riverside

This route operates from the Hub in downtown Danville northwest to the Piedmont Mall and Wall-Mart shopping center, off of Mt. Cross Road. This route includes a mid-route deviation to the Danville Pittsylvania Community Services Center, and includes service to the Piedmont Regional Medical Center and limited trip service to Goodwill Industries.

### Route 6 - Riverside

This route operates from the Hub in downtown Danville northwest to Piedmont Mall and Wal-Mart shopping center, off of Mt. Cross Road. This route's alignment is similar to the Route 5 alignment, but without the deviation to the Danville Pittsylvania Community Services Center. This route also provides service to K-Mart, and has a split alignment between Piedmont Mall and downtown Danville (outbound buses use Memorial Drive, inbound buses use Riverside Drive).

### Route 6B - Glenwood

This route operates from the Hub to Cain Creek Shopping Center, located east of Highway 58 and Highway 29. This route includes service to some of the industrial businesses on the east side of town, such as DIMON and Lorillard. There are only two trips on this route – at 6:40 a.m. and 3:40 p.m.

With the exception of Route 6B, all Danville routes operate at 80-minute frequencies, with  $\frac{1}{2}$  of the routes meeting every 40-minutes at the HUB. Some routes provide overlapping service on roads, resulting in a combined 40-minute service frequency. Routes that meet every 80-minutes in the first "block" at the Hub are:

- #1 New Design-Nor-Dan
- #2 Edgewood-Stokesland
- #3 Danville Estates-Nor-Dan
- #4 Health Center–DCC
- #6 Riverside

Routes that meet every 80-minutes in the second "block at the Hub are:

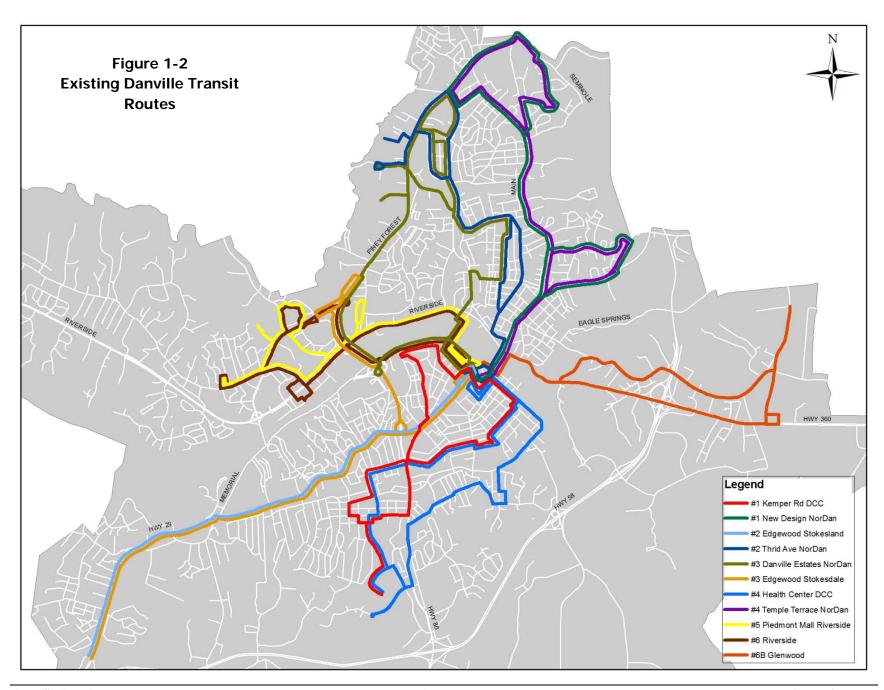
- #1 Kemper Road-DCC
- #2 Third Ave.-Nor-Dan
- #3 Edgewood-Stokesland
- #4 Temple Terrace-Nor-Dan
- #6 Piedmont Mall-Riverside

All routes take 40-minutes to complete a round trip. Thus, a total of six buses are required to provide fixed route service (one bus on each on Routes 1, 2, 3, 4, and 5/6, plus, one bus for the two trips on Route 6B). Figure 1-2 presents Danville Transit's fixed route transit network.

### Reserve-a-Ride Service

In addition to fixed-route service, Danville Transit provides Reserve-a-Ride service that is available for use by all city residents. Reserve-a-Ride is designed to provide transportation service to Danville residents during hours when fixed route service is not available, and also provides service to locations not served by fixed route service. Reserve-a-Ride provides service from and to any location within the city limits of Danville, Monday through Saturday between 4:00 and 6:00 a.m. and between 5:00 p.m. and 1:00 a.m. The one-way fare is \$2.00 from bus stop to bus stop, and \$3.00 for non-bus stop locations. Riders must make a reservation either the day before a trip, or can make a reservation in the morning for a same day trip in the afternoon.

On weekdays, Danville Transit also operates expanded Reserve-a-Ride service to businesses located along Highway 58 east, such as Airside Industrial Park businesses, Yorketowne Cabinetry, and the Institute for Advanced Learning and Research. Expanded Reserve-a-Ride service operates from 6:00 to 9:00 a.m. and from 3:00 to 5:00 p.m.



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### Handivan Service

The third type of service offered by Danville Transit is Handivan service. Riders must be pre-qualified and unable to use fixed route service. Service is offered from 6:00 a.m. to 6:00 p.m., Mondays through Saturdays. Advanced reservations are required the day before a trip. Handivan service is provided anywhere within the City Limits.

### 1.4 Fare Structure

Danville buses accept cash fares and transit tokens. The base fare is \$1.00. Transfers are free. Discounted (½ price) fares are available for Medicare card holders, persons age 60 or older and/or disabled persons, with proper discount fare eligibility identification. Children under four years old ride for free, with only 1 child per adult paying customer. Table 1-1 outlines Danville Transit's fare structure.

Table 1-1
Danville Transit Fare Structure

	Adults	Seniors & Disabled
Base fare	\$1.00	\$.50
Transfers	Free	Free
Token Rolls		
(10 Tokens)	\$4.50	\$4.50
(20 Tokens)	\$9.00	\$9.00
Reserve A Ride		
One-way (bus stop to bus stop)	\$2.00	\$2.00
One-way (non-bus stop locations)	\$3.00	\$3.00
Handivan Base Fare	\$2.00	\$2.00

### 1.5 Vehicle Fleet

Danville Transit owns and operates a fleet of 14 buses, of which two are heavy-duty buses, seven are medium-duty and five are light-duty. Model years for these vehicles range from 2003 to 2008. During Fiscal Year 2008, Danville Transit purchased three 25' demand response buses. Over the past 12 years, Danville Transit has been purchasing 24 and 28 passenger, 30' medium duty buses for fixed route service. In addition to the buses, DT maintains a non-revenue fleet of three vehicles consisting of one truck, a minivan, and a car. Tables 1-2 and 1-3 identify Danville Transit's fleet composition. Airport staff also uses an additional truck that was purchased with airport funds for cleaning the grounds at the transfer center building and at bus shelters along the fixed route network. This vehicle is also used to support airport maintenance requirements.

Table 1-2
Danville Transit Fixed-Route Revenue Fleet

Vehicle		Useful		Seated	# of	Anticipated	Service
ID #'s	Year	Life	Make	Capacity	Vehicles	Replacement	Type
745 - 746	2005	10 YR	Trolleybus -	26	2	FY 14/FY 16	All
			Freightliner				
729 - 731,	2006	7 YR	SupChv –	24-28	5	FY 11/FY 13	Fixed
738, 740			Supreme				Rte
732	2005	7 YR	Int. Aerolite	24-28	1	FY 10-11	Fixed
			320				Rte
741	2004	7 YR	Int. Aerolite	24-28	1	FY 09-10	Fixed
			32NN4				Rte
734	2005	5 YR	Ford	16-20	1	FY 09-10	PT
			Aerotech				
			250				
744	2005	4 YR	Ford E450	16-20	1	FY 08-09	PT
			Goshen				
736 - 737	2008	7 YR	Chevy 4500	16-20	2	FY 14/FY 16	PT
			Goshen				
735	2008	4 YR	Supreme	16-20	1	FY 12-13	PT
			Senator				
				Total			
				Fleet	14		

Note: Bus 738 was in an accident in May 2009 and will not be replaced.

Table 1-3
Danville Transit Non-Revenue Fleet

				# of	Anticipated
Vehicle ID #	Year	Make	Model	Vehicles	Replacement
725	2006	Chevy Truck	ECAB	1	FY 14-15
726	1995	Chevy Sedan	Lumina	1	FY 08-09
748	1995	Ford	AeroStar Van	1	FY 08-09
			Total Fleet	3	

### 1.6 Facilities

The City of Danville operates and maintains a 2,000 square-foot intermodal bus facility on Spring Street in Downtown Danville. This transit center is the main hub for Danville Transit service and has six bus bays. The facility offers patrons timed transfers between fixed routes, an indoor waiting room, restrooms, off-street parking and a window to

obtain transit guides and schedule information from transportation supervisors. Greyhound Lines, Inc. also uses this facility through a lease agreement. A separate ticket window is provided inside for Greyhound personnel. Greyhound buses board and alight passengers on Spring Street.

Danville's Transit Maintenance and Administrative building is located on Old Halifax Road, south of U.S. Highway 360. This facility houses management offices, and the transportation, administrative and maintenance departments. The facility includes a shop and garage where all of Danville Transit's buses are fueled and maintained. City school buses are also stored at this facility.

### 1.7 Transit Security Program

To establish the importance of security and emergency preparedness in all aspects of the organization, Danville Transit has developed a comprehensive set of operating rules and procedures. These rules and procedures are included in Appendix A. In addition, Danville Transit has installed video monitoring cameras on 12 of the 14 fixed-route and demand response buses. In the next few years Danville Transit plans to install security cameras at the administrative maintenance facility where the buses are stored, and inside the City's two trolley buses.

### 1.8 Public Outreach

Danville Transit strives to meet evolving public transportation needs within the city limits of Danville, VA through cooperation, leadership and planning. DT maintains a Transportation Advisory Committee that is comprised of seven members including the City Manager and a City Councilman. This committee reviews all grant applications, planning documents, proposed service changes and fare adjustments. Public Outreach is conducted and documented via this committee whenever a major service reduction or fare adjustment is proposed. Danville Transit has consistently sought public input and involvement to ensure meaningful access to related activities.

### 2.0 GOALS, OBJECTIVES AND STANDARDS

The City of Danville presently has the following stated objectives related to transportation, and more specifically, transit services:

Transportation Service Department Objective: To facilitate safe, reliable, convenient and economical operations that support economic development.

Mass Transit Division Objective: Provide reliable fixed-route and demand responsive service that is safe and convenient which facilitates cost effective transportation access.

Danville Transit also has established operating policies and procedures that are reviewed and signed by each employee. The operating policies and procedures are provided in Appendix A at end of this TDP report.

### 2.1 TDP Goals and Objectives

As part of this TDP work effort, more specific goals, objectives and standards have been defined to guide Danville Transit operations and activities over the TDP time period. Goals center on specific themes. Objectives have been defined within each goal. Future updates of the Danville MPO's Long-Range Transportation plan the City of Danville's Comprehensive Plan should take into consideration these goals and objectives.

### GOAL 1: Provide Reliable Fixed-Route and Demand Responsive Service that Meets the Transportation Needs for Danville Residents.

**Objective 1.1:** Provide transit service connections between residential areas and commercial areas with jobs, education, shopping and medical services. This is to be accomplished through the following minimum activities:

- Documenting and recording customer service requests;
- Working on a regular basis with the City's Economic Development Coordinator to identify planned new developments that might warrant transit service; and
- Surveying riders at least once every five years to determine rider service needs.

**Objective 1.2:** Provide easily identifiable stop locations along routes and passenger shelters if warranted. This is to be accomplished through the following activities:

- Establish safe bus stop locations when modifying an existing alignment or implementing new service.
- Work with City Public Works staff in expanding sidewalks at stops with high ridership demands.
- Monitor ridership activity at high demand stops to determine if/when passenger shelters are needed.

### GOAL 2: Market Existing Transit Services.

**Objective 2.1:** Actively market transit services as a travel option within the City of Danville. This is to be accomplished through the minimum following activities:

- Maintain "Danville Transit System, Route and Schedule Guide" for users of the transit system;
- Maintain transit information on the City's web site;
- Participate in community events to promote public transportation;
- Maintain a mailing list of organizations and social service agencies that represent markets that are likely to ride transit, and provide service information to those organizations and agencies.

**Objective 2.2:** Explore potential demand to expand cost-effective transit service to areas outside of the city limits. This is to be accomplished through the following minimum activities:

 Initiate exploration meetings with City and County staff and officials to determine potential transit service needs, likely transit demand, service options, fare structure requirements that will provide farebox recovery ratios comparable to City transit services, and potential supplemental funding sources.

### GOAL 3: Deliver fixed route and demand responsive services in a costeffective manner.

**Objective 3.1:** Maintain a system-wide farebox recovery ratio (farebox revenues/total operating expenses) that meets or exceeds standards identified in Section 2.2 of this TDP. This is to be accomplished through the following activities:

- Record and monitor trends in passenger trips by route.
- Record and monitor monthly transit operations expenses and farebox revenues

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**Objective 3.2:** Hold administrative costs to approximately 20 percent of total operating budget. This is to be accomplished through the following activities:

Record and monitor monthly transit operations expenses and farebox revenues

**Objective 3.3:** Achieve system-wide fixed route ridership levels that meet or exceed standards identified in Section 2.2 of this TDP. This is to be accomplished through the following activities:

- Maintain and monitor monthly ridership reports for fixed route, reserve-a-ride and handivan service, with ridership reported on a route segment basis for fixed routes.
- Implement corrective measures if ridership falls below established standards for specific routes for more than 2 months in a row. Such corrective measures may include: route alignment, service frequency and span of service adjustments and/or fare adjustments.

### GOAL 4: Deliver fixed route and demand responsive services in a safe manner.

*Objective 4.1:* Insure that transit service operators maintain an accident rate of less than the standard identified in Section 2.2 of this TDP. This is to be accomplished through the following minimum activities:

- Maintain a training program for new employees.
- Review established Operating Policies and Procedures at least once a year and update as necessary. Review those policies and procedures as part of all training efforts with new staff. Also review with existing staff at least once every two years.

**Objective 4.2:** Ensure that an adequate fleet of vehicles is maintained for the fixed-route and demand-responsive services. This is to be accomplished through the following minimum activities:

- Identify the need for replacement vehicles based on industry standards for defined useful life of vehicles. For most buses operated by Danville Transit, the defined useful life is 7-years.
- Maintain a spare ratio of at least 2 buses for fixed-route transit services.

### **GOAL 5: Provide Transit Services That Are Accessible to Citizens**

**Objective 5.1:** Provide transit services that are accessible to all population groups within the City of Danville. This is to be accomplished through the following minimum activities:

- Comply with the applicable requirements of the Americans with Disabilities Act (ADA);
- Provide the ADA-eligible population with paratransit service that is comparable to service provided by the fixed-route system;

### 2.2 Service Performance Standards

This TDP work effort has also identified the following service standards that are to monitored on a monthly basis by Danville Transit administrative staff

### 1. Ridership Service Productivity Measures

The following system-wide service standards are proposed based on a review of ridership characteristics over the past several months:

**Fixed Route Standard** – Monthly system-wide fixed route ridership should maintain levels equivalent to 0.80 passenger trips per revenue mile on weekdays and 0.60 passenger trips per revenue mile on Saturdays.

**Reserve-A-Ride Standard** – Monthly Base Reserve-a-Ride service should maintain ridership levels equivalent to 3.0 passenger trips per revenue-hour with average ride times not exceeding 50-minutes. Monthly Expanded Reserve-a-Ride service should maintain ridership levels equivalent to 2.5 passenger trips per revenue-hour with average ride times not exceeding 50-minutes.

Corrective measures should be investigated if ridership on Danville Transit's fixed route system and/or Reserve-a-Ride system fall below the levels identified above for 3 months in a row.

### 2. Cost Effectiveness Measures

*Fixed Route Standard -* Danville Transit's farebox recovery ratio (farebox revenues as a percentage of operating expenses) for fixed route services shall remain at approximately 20 percent. Corrective measures should be

investigated if the farebox recovery ratio falls below this standard for 3 months in a row.

**Reserve-a-Ride Standard** – Danville Transit's farebox revenues for Reserve-a-Ride service should remain no less than \$8.00 per revenue bushour, with a farebox recovery ratio within the range of 15 to 20 percent. Corrective measures should be investigated if these thresholds are not met for 3 months in a row.

### 3. Vehicle Maintenance Performance Measures

The following two standards shall be monitored with regards to vehicle maintenance performance:

**Bus Preventive Maintenance Inspections** – Preventive maintenance shall be conducted on the transit fleet per vehicle manufacturer recommendations.

**Revenue Vehicle Failures** – Danville Transit should maintain a standard of no more than 0.15 revenue vehicle failures per 1,000 revenue bus-miles of service.

### 3.0 SERVICE AND SYSTEM EVALUATION

As previously noted in Chapter 1 of this TDP, Danville Transit provides fixed route service, Reserve-A-Ride service and Handivan service. Fixed route service is provided from approximately 6:00 a.m. to 6:00 p.m. Figure 3-1 presents the Danville Transit fixed route transit system. Route descriptions were previously provided in Chapter 1 of this TDP. With the exception of Route 6B, all Danville routes operate at 80-minute frequencies, with approximately ½ of the routes meeting every 40-minutes at the Hub. Some routes provide overlapping service on common roads, resulting in a combined 40-minute service frequency along those road segments (e.g., along N. main and W. Main). All routes take 40-minutes to complete a round trip. Thus, a total of six buses are required to provide fixed route service (one bus on each on Routes 1, 2, 3, 4, and 5/6, plus, one bus for the two trips on Route 6B).

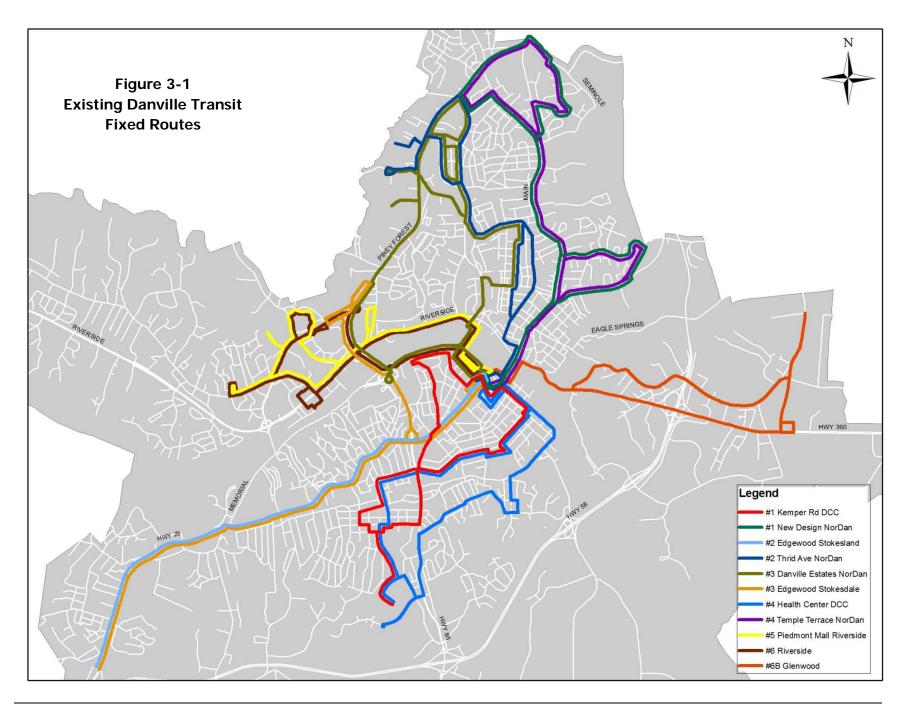
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Danville Transit also operates Expanded Reserve-a-Ride service to businesses located along Highway 58 east, such as Airside Industrial Park businesses, Yorketowne Cabinetry, and the Institute for Advanced Learning and Research. Expanded Reserve-a-Ride service is provided from 6:00 to 9:00 a.m. and from 3:00 to 5:00 p.m.

The third type of service offered by Danville Transit is Handivan service. Riders must be pre-qualified and unable to use fixed route service. Service is offered from 6:00 a.m. to 6:00 p.m., Mondays through Saturdays. Handivan service is provided anywhere within the City Limits.

### 3.1 Existing Service Analysis

Existing ridership performance was conducted by using ridership data collected in November 2008.



### Fixed Route Service

During the month of November 2008, Danville Transit recorded 18,345 passenger boardings. Average weekday ridership was 797 passenger trips and Saturday ridership was 617 passenger trips. Danville Transit ridership is typically higher at the beginning of the month, and November was no exception. Figure 3-2 graphs daily Danville Transit ridership during the month of November.

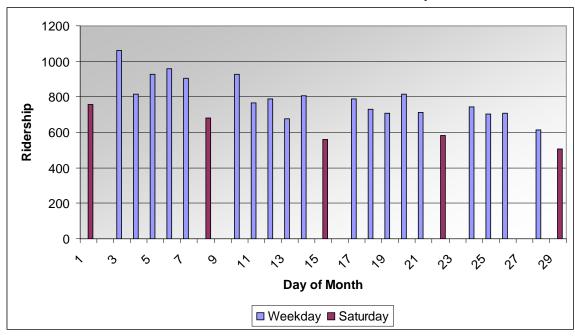


Figure 3-2
November 2008 Fixed Route Ridership

Weekday time-of-day ridership characteristics are fairly flat, with no significant peaking characteristics. Ridership is highest around 10:00 a.m. and 2:00 p.m., as shown in Figure 3-3. Saturday time-of-day ridership characteristics are highest between the hours of 10:00 a.m. and 4:00 p.m., as shown in Figure 3-4.

Figure 3-3
Weekday Ridership by Time of Day

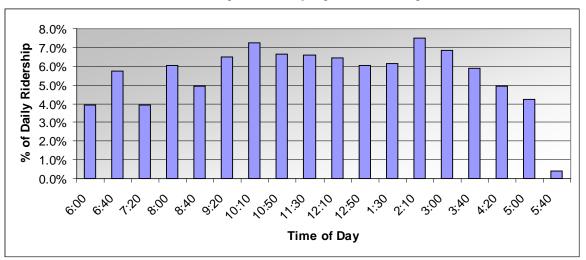
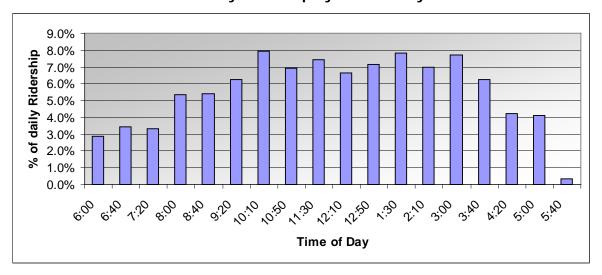
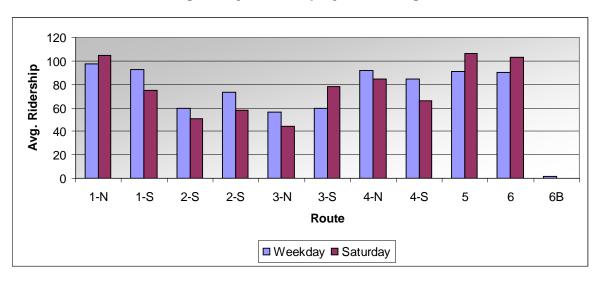


Figure 3-4
Saturday Ridership by Time of Day



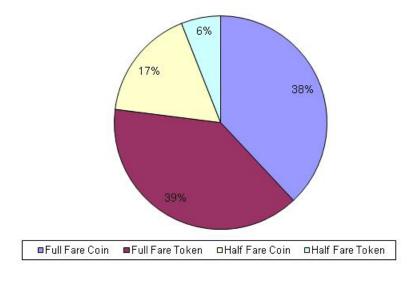
November ridership was also evaluated by route segment. Figure 3-5 presents average weekday and average Saturday ridership during November 2008 for each route segment. Route 1-N in the graph refers to the Route 1 segment that operates north of downtown, Route 1-S refers to the Route 1 segment that operates south of downtown, and so forth. As illustrated in the graph, Routes 1, 4, 5 and 6 all carry over 80 passengers/day on weekdays, and some of these routes even have higher Saturday ridership than weekday ridership.

Figure 3-5
Average Daily Ridership by Route Segment



Finally, November ridership was evaluated by fare category. Danville Transit tracks riders that pay cash fare and with tokens, and tracks those that utilize the half-fare discount (both cash and token). Figure 3-6 illustrates the percentage breakdown of fare utilization during the month of November 2008. Approximately 55% of Danville Transit's riders paid with a cash fare and 45% of the riders completed full-fare token or half-fare token trips during the month of November 2008.

Figure 3-6
Fare Utilization



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### Reserve-a-Ride Service

November 2008 ridership data was used to evaluate existing Reserve-a-Ride service. Figure 3-7 identifies daily ridership for both the base and expanded Reserve-a-Ride service. Overall, Reserve-a-Ride ridership averaged 44.4 riders/day on weekdays and 29.8 riders/day on Saturdays. This equated to an average 3.3 riders/service hour on weekdays and 3.1 riders/service hour on Saturdays. Expanded Reserve-a-Ride service (to the Eastside) averaged 15.2 riders/weekday, equating to 3.0 riders per service hour.

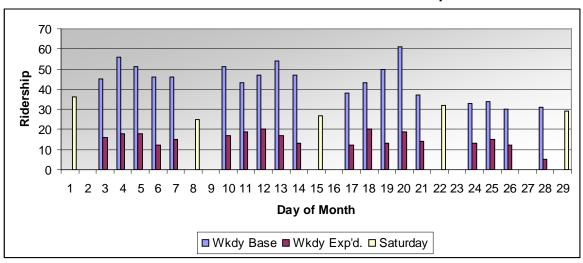


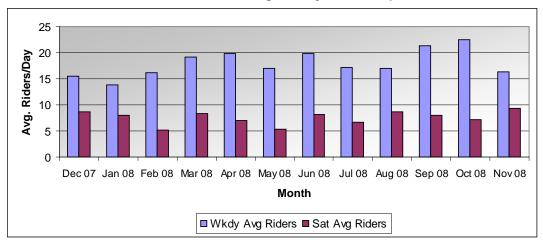
Figure 3-7
November 2008 Reserve-a-Ride Ridership

A ridership comparison was made between July through November 2007 and July through November 2008. Base Reserve-a-Ride ridership has increased by 12 percent. Expanded Reserve-a-Ride ridership has increased by 15%. Reserve-a-Ride service hours have increased by 20%, thus ridership productivity has decreased slightly from 3.3 to 3.1 riders per service-hour.

### Handivan Service

Twelve months of monthly ridership was collected to determine Handivan ridership characteristics. Weekday ridership averages 18 trips per day and Saturday ridership averages 7 to 8 trips per day. Figure 3-8 presents average daily Handivan ridership over the past 12 months.

Figure 3-8
Handivan Average Daily Ridership



### 3.2 Historical Performance Evaluation

National Transit Database (NTD) information was collected for the past 5 years (FY 2003 through 2007) to determine pertinent ridership, service effectiveness and cost effectiveness trends for Danville Transit. Table 3-1 presents annual ridership, service-hours and resulting riders per revenue service-hour over the past five years. This performance measure provides an indication of service effectiveness. As shown in this table, Fixed Route service effectiveness has remained stable over the past 5 years. Service effectiveness for demand response (reserve-a-ride and handyman), however, has increased since 2003, and has remained around 4.7 riders per revenue-hour since 2005.

Table 3-1
Service Effectiveness Historical Trends

	Pass. Trips		Pass. Trips RevHrs		Pass./RevHr.					
Year	MB	DR		MB	D	R	N	ИΒ	DR	
	1									
2003	203,629	16,041	1	8,293	4,1	38	11	1.13	3.88	3
2004	197,794	14,131	1	8,437	3,5	96	10	0.73	3.93	3
2005	204,205	17,549	1	8,434	3,6	73	11	1.08	4.78	3
2006	215,365	17,297	1	8,423	3,7	23	11	1.69	4.65	5
2007	199,903	17,245	1	7,429	3,6	26	11	1.47	4.76	3

MB = Fixed Route

DR = Reserve-a-Ride and Handi-Van Services

Table 3-2 provides a historical perspective of cost-effectiveness trends. This table presents passenger trips, annual O&M costs, and resulting cost per unlinked passenger trip for both fixed route and demand response service. The cost figures presented in this table are unadjusted for inflation. The cost per passenger trip for fixed route service has increased by 16% from 2003 to 2005. The cost per passenger trip for demand response service has increased by 14.6%. Inflation over this same time period has increased by 12%. Thus, Danville Transit's cost-effectiveness has generally tracked with inflation over the 5-year period.

Table 3-2
Cost-Effectiveness Historical Trends

Year	Pass. Trips MB DR		•		O&M/Pa MB	ass. Trip DR	
2003	203,629	16,041		\$663,496	\$177,521	\$3.26	\$11.07
2004	197,794	14,131		\$693,341	\$168,977	\$3.51	\$11.96
2005	204,205	17,549		\$739,618	\$183,398	\$3.62	\$10.45
2006	215,365	17,297		\$784,076	\$202,285	\$3.64	\$11.69
2007	199,903	17,245		\$755,132	\$218,916	\$3.78	\$12.69

MB = Fixed Route

DR = Reserve-a-Ride and Handi-Van Services

NTD data was also used to determine Danville Transit's service efficiency trends. Table 3-3 presents annual O&M Costs, annual revenue-hours, and the resulting cost per revenue hour for fixed route and demand response service. The cost figures presented in this table are unadjusted for inflation. The cost per revenue-hour for fixed route (Motor Bus) service has increased 19% from 2003 to 2007. Costs for demand response service have increased by 41 percent. Inflation has risen by 12% over this same time period.

Table 3-3
Service-Efficiency Historical Trends

	O&M Costs			-Hrs		O&M/RevHr.		
Year	MB	DR	MB	DR	MB	DR		
2003	\$663,496	\$177,521	18,293	4,138	\$36.27	\$42.90		
2004	\$693,341	\$168,977	18,437	3,596	\$37.61	\$46.99		
2005	\$739,618	\$183,398	18,434	3,673	\$40.12	\$49.93		
2006	\$784,076	\$202,285	18,423	3,723	\$42.56	\$54.33		
2007	\$755,132	\$218,916	17,429	3,626	\$43.33	\$60.37		

MB = Fixed Route

DR = Reserve-a-Ride and Handi-Van Services

### 3.3 Peer Review Analysis

A peer review analysis was conducted as part of this TDP work effort to determine if Danville Transit's service effectiveness, cost effectiveness and service efficiency characteristics are in-line with peer agencies. The following six agencies were used as peer systems in this analysis based on transit system size, days of transit operations, service area population and population density:

- Petersburg Area Transit (Petersburg, VA)
- Johnson City Transit (Johnson City, TN)
- Goldsboro-Wayne Transit Authority (Goldsboro, NC)
- Columbus, IN)
- County Commuter (Hagerstown, MD)
- Middletown Transit System (Middletown, OH)

FY 2007 data was used for the peer analysis, with the National Transit Database (NTD) used to collect data for four of the six systems, and phone calls made to the other two systems that do not report to NTD. Appendix B at the end of this report presents a Technical Memorandum with detailed findings from this peer analysis.

In general, Danville Transit's ridership, service and financial characteristics appeared to be within the range of characteristics experienced by its peer systems. Key findings were as follows:

**Vehicle Utilization:** Danville's fleet size and peak utilization was similar to the peer average. Danville Transit did run fewer revenue-hours per peak vehicle than the peer average. However, some of the peer systems run later hours of service than Danville Transit, thus driving up the peer system's average vehicle utilization per peak vehicle.

Service Supplied: Danville Transit operates fewer revenue-hours and revenue-miles per capita than the peer average. Once again, this is due in part to some systems running later hours of service than Danville Transit. Danville also operates fewer revenue-hour and revenue-miles per service area square mile than the peer average However, the Petersburg, VA data significantly raised the peer average. Danville Transit is much closer to the peer average when not including Petersburg in the calculations.

*Ridership Service Productivity:* Danville Transit's service productivity was less than the peer systems when compared on a revenue-hour, revenue-mile and per capita basis. However, Danville's service productivity measures for demand

response service were much higher due to the inclusion of Reserve-a-Ride service in Danville's demand response figures.

**Cost Efficiency:** Danville Transit's cost efficiency characteristics were very similar to the peer systems on a passenger trip basis. Danville Transit's fixed route service was more cost effective than the peer systems on a revenue-hour and revenue-mile basis.

**Vehicle Maintenance Performance:** Danville Transit did have a higher rate of revenue vehicle failures than the peer average. However, data was available for only four of the six peer systems. Thus, comparison data was limited.

*Farebox Revenues:* Danville Transit did much better than its peer systems with regards to farebox recovery. Fixed route service for Danville Transit had a farebox recovery rate of 23% vs. 15% for the peer systems. Demand response service for Danville Transit had a farebox recovery of 19% vs. 14% for the peer systems.

**Source of O&M Funds:** Danville Transit had similar characteristics to the peer systems with regards to the percent of funding that comes from state and local sources. The peer systems, however, had a larger portion of operations funded from federal sources.

**Source of Capital Funds:** Danville Transit's funding sources for capital funds was also similar to the peer systems.

### 3.4 On-Board Survey Findings

An on-board transit rider survey was also conducted as part of the TDP process. Specifically the rider survey was used to determine rider characteristics, trip-making characteristics and perceptions regarding the quality of transit services and future transit service needs. Survey forms were prepared for Danville Transit's fixed route service and Reserve-a-Ride service. Fixed route surveys were conducted on February 5-6, 2009. Reserve-a-Ride patrons were surveyed over a 5-day period beginning February 9 and ending February 13, 2009. An extra operator rotated on fixed routes and distributed surveys to passengers, assisting passengers with responses when necessary. For Reserve-a-Ride service, drivers were asked riders to pick up and complete a survey questionnaire. Each survey instrument asked riders to respond to several questions pertaining to:

Their socioeconomic status (labeled "About You" on the survey form);

- General characteristics of the trip they were making at the time of the survey such as trip purpose, origin and destination (labeled as "About Your Trip" on the survey form);
- Perceptions regarding Danville Transit's existing service (labeled as "Rate Danville Transit's Service" on the survey form); and
- Perceptions regarding needed improvements (labeled as "Identify Future Service Improvement Needs" on the survey form).

Appendix C at the end of this report presents a Technical Memorandum with detailed findings from the on-board transit rider survey. Using these survey results, the typical Danville Transit rider (for both fixed route and Reserve-a-Ride) is as follows:

- Female
- Over 30-years old
- An African American
- At least a High School Graduate
- Has a household income under \$20,000
- Uses Danville Transit service at least 2-3 days a week
- Uses transit for work or shopping trips
- Accesses bus service by walking
- Rides transit because they don't have a car

There are some slight differences in rider profiles between fixed route and Reserve-a-Ride riders. The Reserve-a-Ride riders are more likely to have some college education and are predominantly using the service for home-work trips and less for shopping trips than fixed route riders. Both fixed route and Reserve-a-Ride service received favorable ratings (very good or good) for most service categories such as areas served and cost of the bus fare. The lowest fixed route rating was for hours of bus service (68% rated hours of fixed route bus service as very good or good with the remaining 32% rating it as okay, poor or very poor). The lowest Reserve-a-Ride rating was for on-time performance (42% rated on-time performance as very good or good, with 58% rating it as okay, poor or very poor or not sure).

When asked about potential service improvements, fixed route respondents rated all five potential categories as either very important or somewhat important (improved security, expanded service outside of city, late evening service, more direct bus routing and more frequent service). Late evening fixed route service received slightly more requests than the other categories. Reserve-a-Ride respondents indicated expanded service outside of the City and less advance time to schedule trip as very important or somewhat important.

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Both survey forms had space for riders to provide written comments. Twenty eight (28) people provided written comments on the fixed route form. Six riders commented on the need for Sunday service and seven riders commented on the need for later hours of fixed route service. Other comments included: the need for more frequent service, more buses, bigger buses, and a request to keep the bus station open until all buses stop running. Sixteen (16) people provided written comments on the Reserve-a-Ride form. Three people commented on the need for expanded hours to the Eastside, 2 people commented on more flexibility regarding the scheduling of trips, and 2 people commented on bus on-time performance.

### 3.5 Public Outreach Efforts

On January 30, 2009 key stakeholders that represent transit riders were invited to the City's quarterly Transportation Advisory Committee (TAC). A list of attendees and organizations that they represented is provided in the meeting minutes, which is in Appendix D. A presentation was made by TDP consultant staff that covered the following topics:

- Purpose of the TDP
- TDP Requirements and Content
- Danville TDP Tasks Underway
- Existing Danville Ridership, Service Fleet Age and Financial Characteristics

Topics raised at this TAC/stakeholder meeting were as follows:

- Participants expressed gratitude for the Reserve-a-Ride service that is provided by the city, and how that service provides lower wage employees that cannot afford a car a dependable means to get to and from work. It was noted that the East Side reserve-a-ride service is very reliable and that bus service as a whole is dependable.
- It was noted that Nestle is a huge customer for a temporary employment agency, which is served by the East Side Reserve-a-Ride service.
- Unique Industries is a company in Blairs that makes party favors (streamers, etc.). This is also a client for a temp agency, and they are often looking for employees. Blairs is outside of the Danville Transit service area. It was asked if it would be possible to provide service to this employer in Blairs. Shifts seem to be from 6:30 to 4:30.
- One of the problems observed by transit staff is that riders will often use a bus
  to get to work, but will find a ride to get home. Thus, there is lower productivity
  for those return trips in the afternoon. It was noted by participants that perhaps
  Danville Transit could charge a round trip fare as a means to capture revenues
  for the return trip.

- It was noted that Danville Transit should promote bus service and note the economic value of riding a bus (i.e., bus vs. driving vs. cab). There is a stigma associated with riding a bus, and marketing might help minimize that sigma.
- Fares were not perceived as an impediment to ridership. Current fares are perceived as being reasonable.
- Social service agencies and temporary employment agencies indicated a desire to continue to be informed of any upcoming service changes.
- It was asked if DRPT might have any grants or programs that would help fund regional service (i.e., service that goes outside of the City).
- It was also noted that there is a need to talk to the County about where industries are locating, to determine where there may be potential transit service demands outside of the City.

### 3.6 Facility and Equipment Characteristics

As was noted in Chapter 1 of this TDP, one of the more recent milestones achieved by Danville Transit has been the opening of a 2,000 square foot intermodal bus facility in downtown Danville at Spring and Union Streets (called the "Hub"). This facility opened in October 2007 and is shared with Greyhound Lines, Inc. The Hub is regularly maintained and remains in good shape.

Danville Transit buses are stored and maintained at a facility located on Old Halifax Road, south of US Highway 360. City school buses are also stored at this facility. Danville Transit has plans in place to improve security at this facility by installing perimeter fencing, security cameras (interior and exterior) and a new interior wall in the maintenance facility that separates the service bays from offices.

Danville Transit's vehicle fleet was noted in Chapter 1 of this TDP. Danville Transit towns and operates a fleet of 14 revenue vehicles. Model years for these vehicles range from 2003 to 2008. Table 3-4 identifies model years and existing mileage for Danville Transit's revenue vehicle fleet. Danville Transit is to receive one replacement bus in FY 2009 and has applied for state funds to replace two buses FY 2010. A future fleet replacement schedule is provided in Chapter 6 of this TDP.

Table 3-4
Fixed Route Revenue Fleet Inventory

### **Heavy Duty Buses**

Bus#	Useful Life	Bus Type	Model Year	Dec. 08 Mileage
745	10 years	Freightliner Trolley Bus	2005	6,501
746	10 years	Freightliner Trolley Bus	2005	4,284

### **Medium Duty Buses**

Bus#	Useful Life	Bus Type	Model Year	Dec. 08 Mileage
730	7 years	SUPCHV-SUPREME	2006	74,609
731	7 years	SUPCHV-SUPREME	2006	91,574
740	7 years	SUPCHV-SUPREME	2006	86,859
729	7 years	SUPCHV-SUPREME	2006	83,119
732	7 years	INT AEROLITE 320	2005	141,699
741	7 years	INT AEROLITE 32NN4	2004	157,656

### **Light Duty Buses**

Bus#	Useful Life	Bus Type	Model Year	Dec. 08 Mileage
734	4 years	FORD AEROTECH 250	2005	75,401
744	4 years	FORD E450 GOSHEN	2005	188,630
735	4 years	GAS CHEVY	2008	34,422
736	7 years	CHEVY GOSHEN	2008	28,696
737	7 years	CHEVY GOSHEN	2008	32,254

#### Notes:

Not included in this table is bus 733 which will be retired this year and not replaced. Also not included is Bus 738, which was in an accident and totaled in May 2009.

### 3.7 Title VI and Triennial Review

Danville Transit has a Title VI Program in place that is in compliance with 49CFR Section 21.9(b). The Title VI Plan identifies a Title VI Coordinator and that person's responsibilities with regards to various program areas such as communications and public involvement. The Title VI Plan includes a Public Involvement Plan and identifies strategies for engaging Title VI protected groups and engaging individuals with limited English proficiency.

Danville Transit went through FTA's Triennial Review Program in early 2008. Danville Transit was found in compliance in 19 of FTA's 23 areas of requirements. Deficiencies were found in the following four areas: Financial, Procurement, DBE, and Drug and Alcohol Testing Program. Danville Transit has taken corrective actions for all four areas and has FTA has determined the City's corrective actions to be sufficient. Noted below

is more detailed information concerning each deficiency and how each deficiency has been resolved.

Financial – The City charges incidental costs to its operating grant through a cost allocation plan, however this plan was not approved by the City's cognizant federal agency, the Department of Health and Human Services (DHHS). After repeated efforts by the City's Finance Director to obtain approval of the plan by DHHS, the City's cognizant federal agency informed the City that they were not required to complete the review. Therefore, the cost allocation plan was submitted to the Federal Transit Administration for review and it was approved in April 2008. In the future, Danville Transit will submit its cost allocation plan directly to the Federal Transit Administration.

**Procurement** – The Danville Transit System procured three buses during FY 08. Two of these buses were bid through the City's Purchasing Office and all appropriate federal clauses and certification forms were included in the bid document. However, one bus was purchased under state contract through the Virginia Department of Transportation and the subsequent state contract did not include any federal clauses. To correct this deficiency, Danville Transit will no longer purchase any vehicles through state contracts that do not maintain the appropriate federal clauses.

*DBE* – While the City relies on the Virginia Department of Minority Business Enterprise to certify Disadvantaged Business Enterprises, the city could not locate its agreement with this State agency. TO correct this deficiency, a contract with the Virginia Department of Minority Business Enterprise was obtained and submitted for review to the Federal Transit Administration.

*Drug and Alcohol Program* – The City of Danville's Occupational Health Office manages the City's drug and alcohol program. Staff had not conducted oversight monitoring of testing as frequently as desired by the Federal Transit Administration. To correct this deficiency, staff from the Occupational Health Office has implemented procedures to increase its random oversight monitoring of the sites.

## 4.0 TRANSIT SERVICE AND FACILITY NEEDS ASSESSMENT

This chapter identifies potential service and facility needs for the Danville Transit service area. Service and facility needs are identified based on the evaluation conducted in previous chapters of this TDP, stakeholder meetings and demographic analysis. The demographic analysis identifies the propensity to use transit based on household and employment densities from the Danville MPO Long-Range Transportation Plan Update. This is followed by proposed service improvements, new route concepts and facility recommendations. Cost estimates and policy implications are included for each proposed need.

### 4.1 Demographic Assessment

For mass transit to be successful there needs to be "mass" or density. Fixed route transit services are generally successful in areas with high household and employment densities. Thus, one means of identifying the need for transit is to identify areas that have attained at least the minimum densities, or thresholds sufficient to be supportive of fixed route transit service.

Demographic estimates and forecasts have recently been updated for the Danville area as part of the MPO's Long-Range Transportation Plan (LRTP) Update. Population, household and employment estimates have been prepared for the year 2006, and forecasts have been prepared for the year 2035. For purposes of this TDP, 2015 demographic data has also been estimated based on a straight-line interpolation.

The MPO's demographic forecasts reflect the following projected changes within the City of Danville between 2006 and 2035:

- Population + 885 (1.3% increase)
- Households + 1,046 (4.9% increase)
- Employment + 5,096 (19.8% increase)

A straight line interpolation was used to estimate 2015 forecasts, resulting in 2015 projections of 275 additional persons, 325 additional households and 1,582 additional employees within the City of Danville.

Upon closer examination, less than 25% of the population growth is projected to occur within the Danville city limits, with most of that growth occurring in areas that are not presently served by Danville Transit. Many traffic analysis zones in areas presently

served by Danville Transit are projected to lose population. Most of the employment growth, however, is projected to occur within the city limits, with a lot of that growth occurring in central Danville, in the area east of Highway 29 (near the airport), at Highway 29 and Highway 86, and along Business Highway 29 on the south side of the City.

Figures 4-1 through 4-3 illustrate projected population, household and employment changes from 2006 to 2015 by traffic analysis zone.

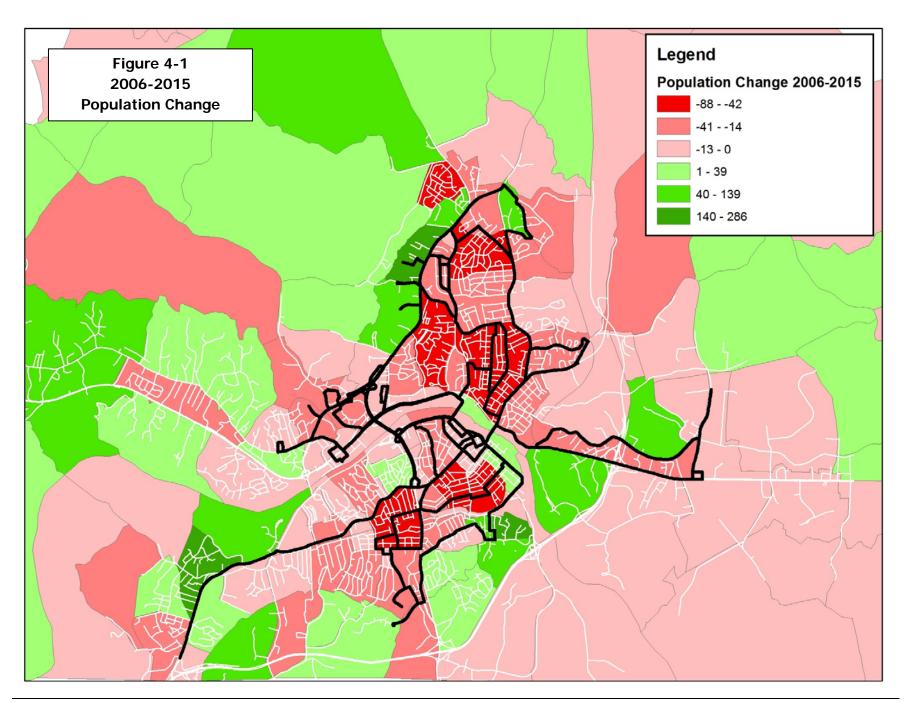
As previously noted, transit propensity is often measured on the basis of household and employment densities. The Transit Capacity and Quality of Service Manual  $-2^{nd}$  edition (Transit Cooperative Research Program, 2003) identifies a density of three households per acre and/or four jobs per acre as thresholds to qualify as a transit-supportive environment.

Figures 4-4 and 4-5 present household densities for 2006 and 2015. Twelve Traffic Analysis Zones (TAZ's) met the threshold of 3 or more households per acre in both the 2006 and 2015 datasets, with many more TAZ's just under that threshold. Most of the TAZ's with 3 or more households per acre were south of the Dan River and all are located along existing transit routes.

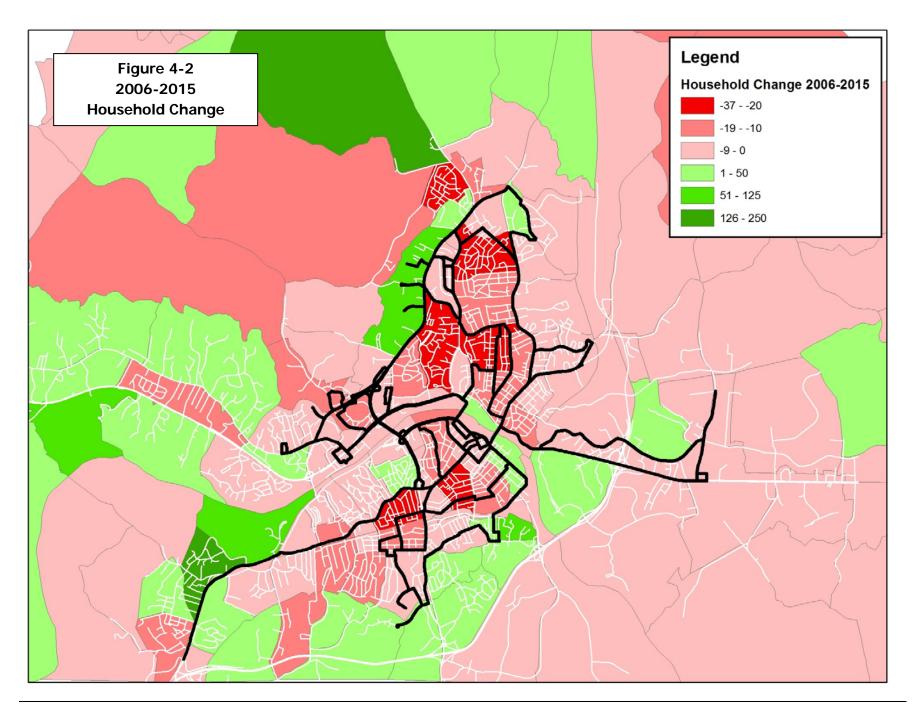
Figures 4-6 and 4-7 present employment densities for 2006 and 2015. Twenty TAZ's met the threshold of 4 or more employees per acre in 2006 and 2015.

In addition to population and employment densities, the propensity to use transit is influenced by other factors such as availability of an automobile, income and age. The 2000 Census identified the following population characteristics for Danville that are related to potential transit dependent groups:

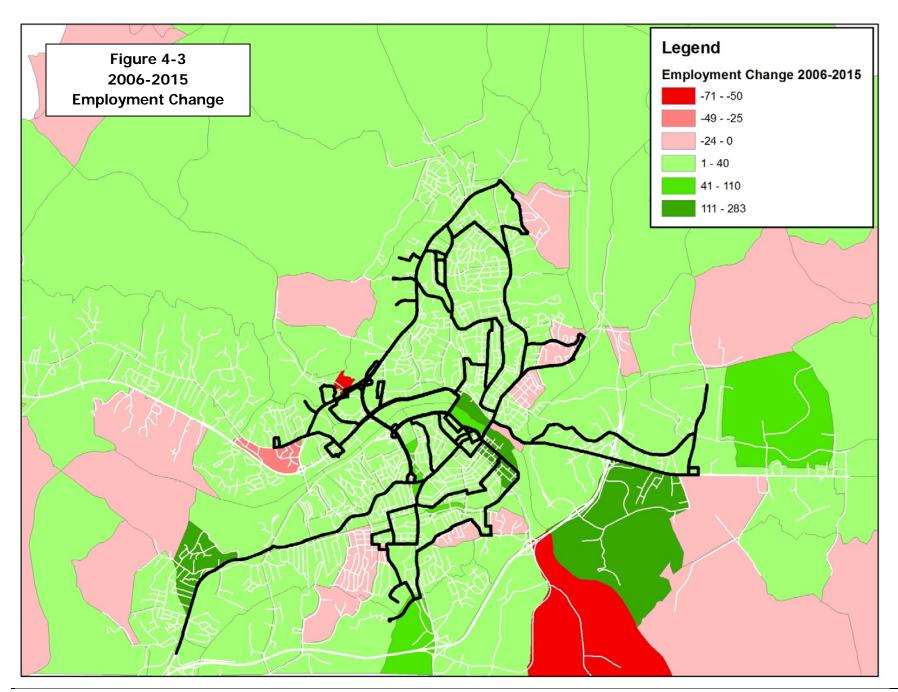
- Approximately 15% of Danville households were identified as autoless.
- Approximately 19% of Danville residents identified household incomes below the poverty line.
- Approximately 24% of Danville residents were 64 years or older.
- Approximately 10% of Danville residents identified themselves as mobilitydisabled.



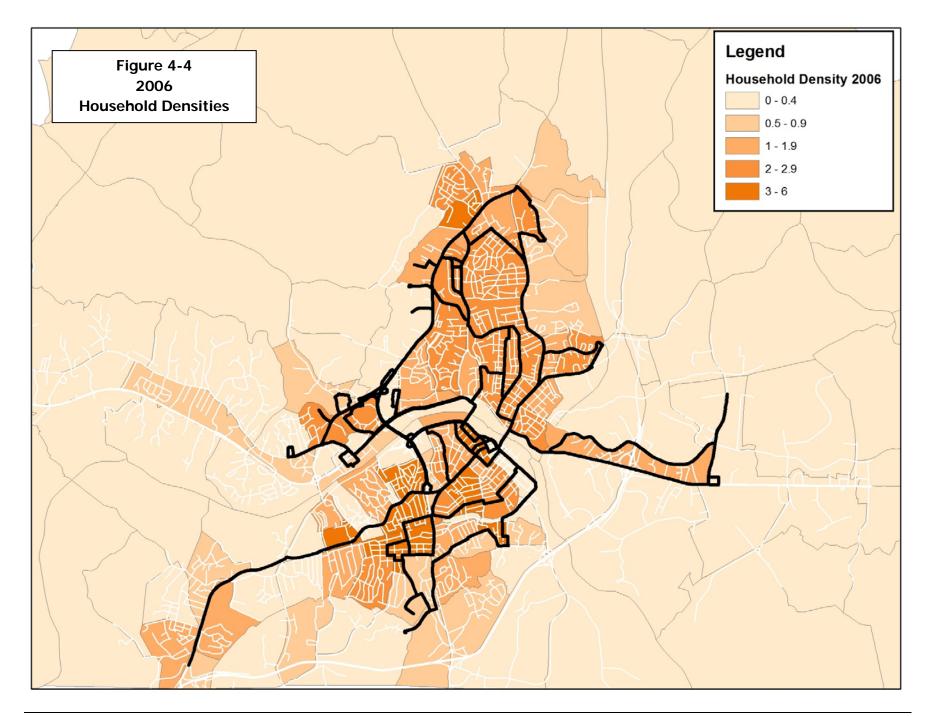
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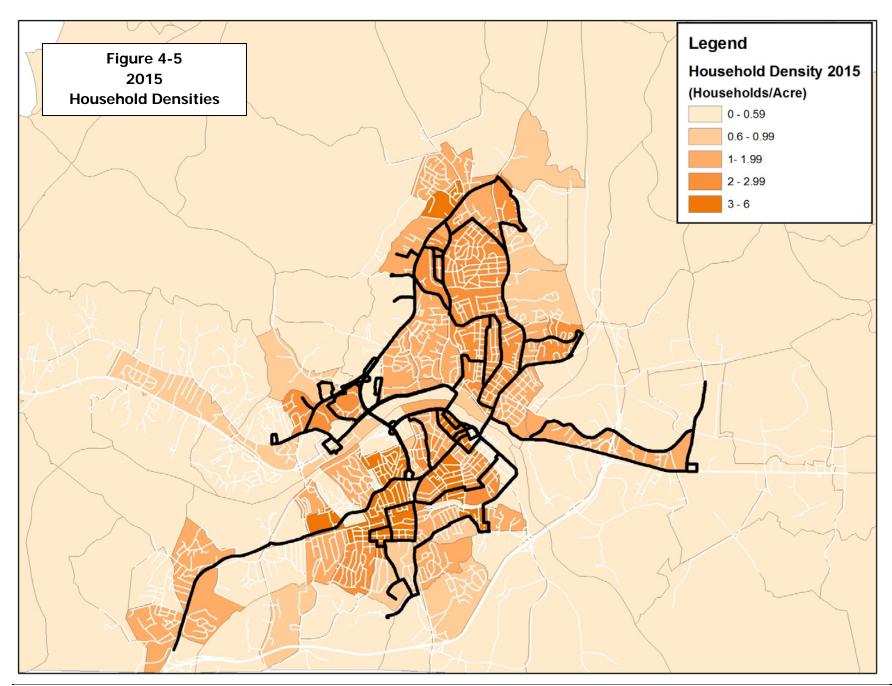
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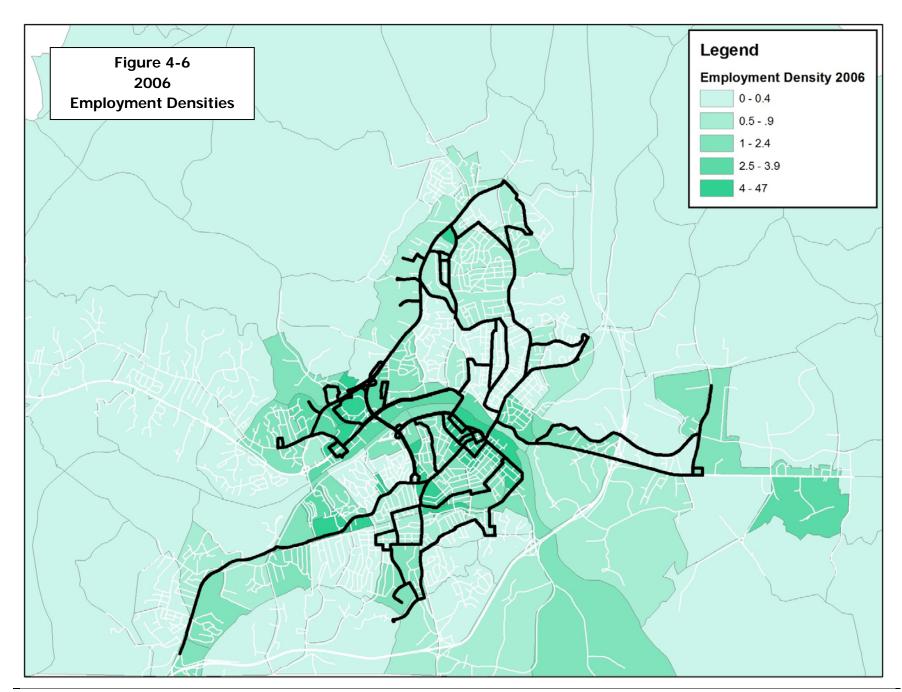
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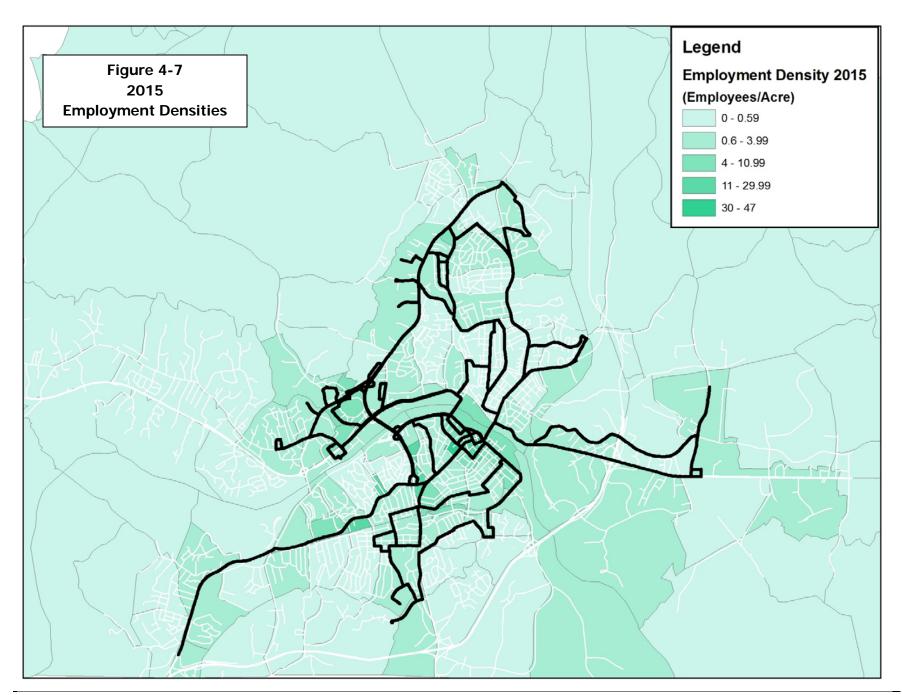
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### 4.2 Service and Facility Needs

The TDP up to this point has included an analysis of existing ridership, service and cost characteristics, a peer agency review and a survey of Danville riders. A meeting was also held with the City's Transportation Advisory Committee and representatives of stakeholder groups to gather input regarding service and facility needs. Conclusions drawn from these TDP work tasks and input received from riders, stakeholder groups, the City's Transportation Advisory Committee and staff have been used to determine the following *potential* service and facility needs for consideration in this TDP.

### Service Needs

The following service needs have been identified as measures that would improve the level of transit service and the extent of transit coverage for existing and potential future Danville Transit customers.

### 1. Evening Fixed Route Service

Danville Transit fixed route service presently ends at approximately 6:00 p.m. Transit service is still available after 6:00 p.m. to residents through Danville Transit's Reserve-a-Ride program. However, the Reserve-a-Ride program requires advance reservations, has a higher fare than fixed route service, and trip times may vary because of the need for Danville Transit to coordinate trip requests. Some transit survey respondents indicated a desire for evening fixed route service. Later fixed route service would improve transit accessibility to jobs, for many retail service sector jobs have work shifts that go into the evening. Further, employment agency representatives on this TDP's Task Force indicated that dependable transportation is often a major deterrent for their clients when seeking jobs. Thus, later fixed route service to commercial areas would provide the dependable transportation that many retail sector employees need.

Service productivity measures (e.g., riders per revenue-hour) on fixed route service typically drops in the evening hours. Thus, it is often appropriate to scale back transit service levels in the evenings. As an example, a reduced evening transit schedule might reflect service on just the following routes, representing a level of service that is approximately 40% of the daytime level of service: (2 buses):

- Route 1 New Design-Nor-Dan
- Route 1 Kemper Rd.-DCC
- Route 2 Edgewood-Stokesland

### Route 5 – Piedmont Mall-Riverside

If evening service were to be provided (whether it be for just the routes noted above, or for all routes), it is suggested that such service should operate until at least 9:00 p.m., Mondays through Saturdays. The establishment of limited evening service would not eliminate the need for Reserve-a-Ride service. A coordinated fixed route / Reserve-a-Ride service would need to be in place, with the Reserve-a-Ride service providing service to areas that are not served by any evening fixed routes.

### 2. Expanded Fixed Route Coverage within City

Danville Transit's fixed route service provides coverage in the more dense areas of the city, as was shown in Figures 4-4 and 4-5. As described later in this chapter, primary service issues are with regards to service frequencies and indirect routing. There is one geographic area, however, that presently has limited fixed route service that could benefit from all-day service. The east side of Danville along Hwy 58 is presently served by only one morning and one afternoon fixed route trip (Route 6b), with service to Kentuck Road, Halifax Road and Old Halifax Road by request only. Service to the industrial park east of the airport is served only by an East Side Reserve-a-Ride. Regular-scheduled weekday fixed route service to this area of the City may warrant consideration within the TDP time frame.

### 3. Expanded Reserve-a-Ride Service

Danville Transit's Reserve-a-Ride service has been an effective means to provide public transportation to residents during off-peak hours when fixed route service is not operating. This service, however, requires extensive trip coordination which can sometimes adversely impact the customer's trip time (e.g., additional wait time to be picked-up, or additional in-vehicle time to pick-up / drop-off other passengers). Danville Transit typically devotes just 1 bus to Reserve-a-Ride service, but will sometimes commit a second bus when demand warrants this need. It is becoming increasingly more difficult to accommodate trip requests and still provide reasonable trip times for customers, with just one bus operating most time periods.

Two expanded Reserve-a-Ride service options are proposed. The first option consists of an extra bus committed to Reserve-a-Ride from 6 a.m. to 8 p.m. (i.e., 14 additional hours of Reserve-a-Ride service each weekday). Thus, total buses committed to Reserve-a-Ride by time period would be as follows:

- 4:00 to 6:00 a.m. 2 buses
- 6:00 to 9:00 a.m. 2 buses
- 9:00 a.m. to 3:00 p.m. 1 bus
- 3:00 to 8:00 p.m. 2 buses
- 8:00 p.m. to 1:00 am. 1 to 2 buses, depending on demand

Reserve-a-Ride buses that operate during fixed route service hours would only serve customers that are not located on a fixed route. The commitment of a  $2^{nd}$  bus during the peak time periods will improve customer trip times and allow Danville Transit to more actively market Reserve-a-Ride service and add to the customer base.

The second option also reflects expanded Reserve-a-Ride service, but on a more limited basis. Reserve-a-Ride would be expanded only from 9:00 a.m. to 3:00 p.m. (i.e., 6 hours per day), and would provide service during those hours only to areas not presently served by fixed route service. Service during these hours would fill the gap that presently exists when Expanded Reserve-a-Ride service to/from the Eastside is not operating. Passengers using Reserve-a-Ride during those hours could use the service for trips with origins and destinations not on the fixed route service, or could use the service to access the fixed route service. This service expansion would not require the purchase of any additional buses.

### 4. Downtown Trolley Circulator

The City of Danville is actively promoting redevelopment of its Central Business District. A downtown circulator would provide a means to provide transit circulation throughout the historic downtown and the Tobacco Warehouse District that would support the City's downtown economic redevelopment objectives. Danville Transit presently has two replica trolley buses in its fleet that could be used for this service. Specific routing needs to be defined, but ideally would be a route that can operate at 30-minute frequencies with one bus, with service provided at least Mondays through Fridays from 7:00 a.m. to 6:00 p.m.

### 5. Improved Frequencies and More Direct Routing

Danville Transit's existing fixed routes all operate at 80-minute frequencies. There is some overlap, so some key corridors do receive 40-minute service through the combination of two routes (e.g., Routes 1 and 4 along North Main Street). Further, select routes are off-set to provide 40-minute service to/from major destinations (e.g., Routes 5 and 6 combined provide 40-minute service frequencies from the HUB to the Piedmont Mall area). However, there are still

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many areas of the City where residents receive 80-minute bus service. Peer systems used in this TDP's peer agency review analysis typically have routes operating at 30 to 60-minute frequencies.

Danville Transit's routes are also circuitous with large one-direction loops. Such routing maximizes transit coverage when resources are scarce, but they do result in longer bus travel times for transit riders because of out-of-direction travel. For example, a rider that boards at Purdum Woods apartments must ride the bus north to Nor-Dan before it heads downtown to the Hub. Similarly, a rider that boards at Holbrook has a reasonably direct travel time to the downtown Hub, but that rider's return trip requires a long bus ride that goes first to the Danville Community College and the Health Department before returning back to Holbrook. Thus, trips that may only take 5-minutes by automobile can often take 30-minutes or more by bus.

A modified route structure with more direct routing, two direction service on roads and more frequent service would make transit more convenient and attractive to use. Such improvements, however, are not possible without a significant increase in transit resources (i.e., additional buses and additional bushours of service). As previously noted, Danville Transit's existing routes are designed to operate at 80-minute frequencies, with routes returning to the HUB every 40-minutes to accommodate transfers before continuing on the second leg of their route. Thus, complete route restructuring would be required to obtain more frequent service and more direct routing. A restructured service plan requires stop-level ridership data that has not been collected as part of this TDP work effort. Thus, a comprehensive operations analysis should be completed as input into the development of a restructured service plan.

For purposes of this TDP work effort, however, an example restructured service scenario has been prepared to estimate potential vehicle requirements and service-hours. This potential service scenario assumes a continued focus of service at the downtown HUB, but with timed route meets also at Wal-Mart, Nor-Dan Shopping Center and the Danville Community College. This potential service scenario would provide direct service between these hub locations at 60-minute service frequencies. Evening fixed route service is also reflected in this potential service scenario. Such a scenario would require 9 peak buses (vs. the 6 peak buses that are presently required for Danville Transit fixed route service). Thus, for purposes of this TDP, it has been assumed that improved frequencies and more direct routing will require an additional 3 peak/4 fleet buses.

### 6. County Transit Service

Finally, it is important to point out the individual travel patterns often cross the city limits. The *West Piedmont Coordinated Human Service Mobility Plan* documents regional transit service needs in the Danville area, noting numerous employment, shopping and social service agency destinations within Danville that are utilized by county residents. Further, there are several employers located outside of the City that could benefit from service to residents within the city. As an example, representatives on this study's task force identified an employer in Blairs that could potentially benefit from transit services to/from Danville.

Local funding for Danville Transit presently comes entirely from the City of Danville, thus service is presently provided only within the city limits. Thus, any service provided outside of the city limits will require County participation.

### Facility Needs

The following facility needs have been proposed as measures that will improve worker and customer safety, increase security, reduce operating costs, and improve the energy efficiency of the maintenance facility.

### 1. Maintenance Facility Improvements

Staff has identified the need for several improvements at the Danville Transit maintenance facility. Potential facility improvements include:

- Rehabilitate parking lot
- Improve drainage on east side of building
- Upgrade garage HVAC system
- Replace interior and exterior lights, install sensors
- Paint metal roof and exterior of building
- Add security fencing and automatic gates
- Construct interior wall along bus bays
- Recover flooring in administrative area with ceramic flooring
- Epoxy seal mass transit garage floor
- Renovate mass transit building administrative areas on first and second floors to provide additional safety exits
- Install camera surveillance equipment
- Add card access system to certain doors
- Purchase photocopier for mass transit office
- Replace 3 bay doors

### 2. Bus Wash System

The existing maintenance facility includes a bus wash area. However, a used bus wash system was installed when the facility was constructed, and has since been removed due to excessive repair costs. A new bus wash system is needed at the facility.

### 3. Driver Locker Room/Crew Haul

The existing maintenance facility currently has limited space for driver needs. There is a small conference room on the 2<sup>nd</sup> floor of the facility that is presently used for driver training. Expansion of the facility is desired to provide a larger room for driver training that can better accommodate all drivers, and provide sufficient space for a driver locker room.

### 4. Downtown Transfer Center Improvements

Staff has also identified the need for minor improvements at the downtown HUB. Potential improvements include:

- Add a LED clock at the facility
- Replace a sliding window at counter inside the building with a more secure window (for security reasons)
- Replace flooring in the common area with ceramic tile.

### 5. Farebox Equipment

Danville Transit buses are presently equipped with manual fareboxes. Presently, there appears to be some fare evasion, with patrons dropping in less than a full fare. Electronic fareboxes would provide Danville Transit with more flexibility with regards to alternative fare media, reduce fare evasion, and provide a means to electronically track riders by fare media. However, the use of electronic fareboxes could adversely impact passenger loading times and Danville Transit's maintenance costs, depending on characteristics of the preferred electronic farebox. Thus, further evaluation of the benefits vs. costs of electronic fareboxes is needed.

### 6. Bus Pull-Out and Shelter at Community Market

A bus pull-out lane and an aesthetic shelter has also been proposed at the Community Market, located near the Danville Amtrak station. Special events are held throughout the year at this location. A pull-out lane will provide a place for buses to stage during those events. As noted above, the Amtrak station is

located adjacent to the location of this proposed pull-out lane. This pull-out lane would also be beneficial for use by Amtrak passengers that are transferring to/from the Danville Transit system (primarily Reserve-a-Ride service given the times Amtrak operates through Danville).

### 7. Passenger Shelters and Benches

The addition of passenger shelters and benches at bus stops provide an enhanced visual transit presence in the community, and provides an amenity that may encourage greater transit usage. Presently, shelters are located at only a few locations, such as at the Nor-Dan shopping center and Edgewood (there are a total of seven passenger shelters that are located along bus routes). There are also a number of benches located along bus routes (a total of 29). Many of these benches have been put in place by others (e.g., benches at the Wal-Mart stop). Staff has identified potentially 16 other locations where benches and/or shelters would enhance the quality of service for Danville Transit customers. Existing locations of shelters and benches, and potential locations for new shelters or benches are listed in Table 4-2 on the following page.

### 8. Bus Replacement/Expansion

Chapter 3 of this TDP presented a roster of Danville Transit's existing bus fleet. Until recently, Danville Transit had a fleet of 7 medium duty buses (24-28 passenger buses) and 5 light duty buses (16-20 passenger buses). One bus (#738) was recently totaled (in May 2009) and will not be replaced. All future bus purchased are proposed to be medium duty buses. Anticipated bus replacement requirements during the TDP time period are as follows:

Table 4-1

Danville Transit Bus Replacement Requirements

Year	Buses
FY 2010	2 buses
FY 2011	1 bus
FY 2012	3 buses
FY 2013	2 buses
FY 2014	2 buses
FY 2015	0 buses

A total of 10 replacement buses are proposed during the TDP six-year time period. Should any of the suggested service expansion proposals be implemented, additional buses will need to be purchased beyond those identified above.

Table 4-2
Existing Benches and Shelters and Potential New Locations

Existing Benches	
Bus Stop Locations	# of Benches
Piedmont Regional Medical Ctr Executive Dr.	1
Wyatt Buick - Riverside Dr.	1
Pepsi Dist.Building - Riverside Dr.	1
North Main St. & Keen	3
Carter's Store - West Main St.	1
Corning Drive & West Main St.	1
Papa John's - Piney Forest Rd.	1
Wal-Mart	2
Janie's Hope Apartments - Rocky Lane	1
Patton St. & Craghead St.	1
Main St. & Chestnut	1
Main St. & Chambers	1
Main St. & Holbrook	1
Main St. at Mount Vernon Church	2
West Main St. at Dr. Ashby's Office (1124 W. Main)	1
West Main St. at Mt. Vernon Ave.	1
West Main St. at Swicegood's Funeral Home	1
West Main St. & Baltimore Ave.	2
West Main St. & Bishop Ave.	1
West Main & Stokesland Ave. (westbound side)	2
West Main & Edgewood Dr.	2
Southern Virginia Mental Health (Taylor Dr.)	1

Existing Shelters								
Bus Stop Locations	# of Shelters							
Craghead St. & Patton St.	1							
Transfer Center - Spring St./ Union St.	2							
Nor Dan	1							
West Main St. & Edgewood Dr.	1							
Danville-Pittsylvania Community Services	1							
Goodwill - Westover Dr.	1							

Possible Locations for Benches or Shelters									
Bus Stop Locations									
Chatham St. & Bonner Ave.									
Health Department - Taylor Dr									
Coleman Market Place									
Danville Community College - near Taylor Building									
Kemper Rd. at Mission Baptist Church									
Express Line - Purdum Woods Apartments									
Social Security Building (new) - Piney Forest Rd.									
Hairston-Johnson Senior Citizens - Beaver Mill Rd.									
Virginia Employment Commission									
Bibleway Church - Grant St.									
Fas Mart - Arnett Blvd.									
Harris Financial Service Ctr Memorial Dr.									
Taco Bell - Riverside									
Biscuitville - Riverside									
Across from Post Office on Westover Dr.									
Ballou Park Shopping Center									

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### 9. Downtown Circulator Facility

In conjunction with a downtown trolley service, a parking/bicycle/transit facility has been proposed for downtown Danville that would be the downtown trolley route's primary downtown stop. This facility's first floor would be designed in a manner to accommodate trolley buses. The facility would be used as the location for trolley buses to layover between trips.

### 4.3 Funding Requirements

Potential costs were identified for the service and facility needs identified above. Potential funding requirements for service expansion are based on the following assumptions:

- Adding evening fixed route service until 9:00 p.m. is estimated to require at least 2 buses, and possibly more, depending on the number of routes that operate in the evening (i.e., limited evening service vs. all routes operating in the evening).
   Evening service with two buses could require 1,625 additional annual revenuehours of service, but no additional peak buses.
- Providing all-day fixed route service (Route 6b) to the airport industrial park area on weekdays only is estimated to require 2,850 annual revenue-hours of service, but no additional peak buses.
- Expansion of Reserve-a-Ride service from 6 a.m. to 8 p.m. on weekdays (i.e., Option A) would require one extra bus and would generate 3,570 annual revenue hours of service. A more limited expansion of Reserve-a-Ride service as reflected in Option B (i.e., from 9 a.m. to 3 p.m.) would generate 1,530 annual revenue hours of service.
- A downtown trolley service is estimated to require 2,800 annual revenue hours of service. No additional buses need to be purchased for this potential new route. Danville Transit presently has two replica trolley buses that could be used for this service.
- Restructuring bus service to provide more frequent service and more direct routing will require a significant increase in financial resources. As previously noted, a comprehensive operations analysis is needed to determine an appropriate restructured bus service plan. For purposes of costing in this TDP, a restructured service scenario was developed that assumes the peak bus requirement increases from 6 to 9 buses, and includes evening service. Annual revenue-hours could potentially increase by over 19,000 hours (i.e., more than doubling existing service-hours).

Facility need funding requirements are based on cost estimates prepared by City staff. Tables 4-3 and 4-4 present estimated funding requirements for each service and facility

need in current year dollars. Costs for service improvements are based on rates of about \$30 per revenue-hour for improvements that are anticipated to have a marginal impact on operating and maintenance costs and \$50 per revenue-hour for more substantial improvements that would likely trigger the need for additional mechanics, administrative staff, etc. (e.g., major route restructuring).

Table 4-3
Danville Transit TDP Service Needs
Estimated Annual Operating and Maintenance Costs
(in 2009 dollars)

Service Improvement	Estimated O&M Cost				
Evening Service	\$50,000 for two buses operating				
	in the evenings until 9:00				
Expanded Eastside Fixed Route	\$90,000 annually for expanding				
Service	Route 6B to all-day service				
Expanded Reserve-a-Ride Service	\$107,000 annually to operate an				
Option A (6 a.m. to 8 p.m.)	additional RAR bus M-F from 6				
	am to 8 pm				
Expanded Reserve-a-Ride Service	\$46,000 annually to expand RAR				
Option B (9 a.m. to 3 p.m.)	service between 9 a.m. and 3				
	p.m.				
Downtown Trolley Service	\$84,000 annually to operate one				
	downtown trolley bus M-F from 7				
	am to 6 pm				
Improved Frequencies and More	Could be up to \$1,000,000				
Direct Routing	annually depending on extent of				
	route improvements				
County-wide Transit Service	Unknown at this time. Further				
	study required.				

### Notes:

- 1. Costs for expanded evening, eastside fixed route, expanded Reserve-a-Ride and downtown trolley service based on a marginal O&M cost of \$30/hour. More significant expansion and restructuring assumed to have an O&M cost of \$50/hour (i.e., a fully-allocated rate).
- 2. O&M costs reflect estimated costs before consideration of potential farebox and other revenues.

## Table 4-4 Danville Transit TDP Facility Needs Estimated Capital Costs (in 2009 dollars)

Facility Improvement	Additional Funding Required				
Maintenance Facility	\$670,000*				
Improvements					
Bus Wash System	\$184,000				
Driver Locker Room / Crew Haul	\$350,000				
Downtown Transfer Center	\$12,000				
Improvements					
Electronic Fareboxes	\$180,000 for 12 buses				
Bus Pull-Out Lane and Shelter at	\$60,000				
Community Market					
Passenger Benches and Shelters:	\$45,000				
Replace panels on existing					
shelters and add new shelters &					
benches					
Bus Fleet Replacements over 6	\$1,000,000				
years (10 buses @approx.					
\$100,000 each)					
Potential Bus Fleet Expansion if	\$400,000				
Service were Expanded (4 new					
buses assumed @ \$100,000					
each)					
Downtown Parking/Transit/Bike	\$10 million**				
Facility					

<sup>\*</sup> Includes potential costs for general contractor and contingency

<sup>\*\*</sup> Costs for downtown parking/transit/bike facility uncertain at this point. Above costs inserted as a placeholder.

### 5.0 SERVICE AND FACILITY RECOMMENDATIONS

This chapter identifies service and facility needs that are recommended for inclusion in the six-year TDP time period (FY 2010 through FY 2015). Potential service and facility needs were identified in the prior chapter of this TDP. Recommended service and facility improvements that are presented in this chapter are based on anticipated funding availability during the TDP time period.

### 5.1 Service Recommendations

Chapter 4 of this TDP identified the following potential service improvements for consideration over the TDP's six-year time period:

- Limited evening fixed route service
- All-day fixed route service to the City's east side
- Expansion of Reserve-a-Ride service (2 options were presented)
- Downtown Trolley Circulator
- Restructured route system with more frequent service
- Potential service outside of the city and into unincorporated Pittsylvania County

Unfortunately, the reality of Danville's financial condition is unlikely to allow for transit service expansion in the near-future. As was noted in Chapter 3, Danville covers about 50% of O&M costs through fare collection and local government funding, with a little less than ½ of this amount coming from passenger fares. The remaining 50% is funded through federal (30%) and state (20%) funding programs. Future state funding levels for operations support are uncertain at this point, with the State having recently enacted funding cuts. In addition, the Danville area's economy has been hard hit by the nation's current economic crises. The unemployment rate in Danville was 13.7% in March 2009 – one of the highest unemployment rates in Virginia. Thus, the City's tax base is not presently growing, making it further unlikely to locally fund service improvements in the near-term. Therefore, *this TDP's top priority is maintaining existing fixed route, Reserve-a-Ride and Handivan service levels*.

Beginning in 2011 (should funding be available), it is proposed that Reserve-a-Ride service be expanded to include service from 9:00 a.m. to 3:00 p.m. (Option B, as described in Chapter 4). This service improvement will not require any additional buses to Danville Transit's existing bus fleet. As previously noted, Reserve-a-Ride to the Eastside presently operates in the morning until 9:00 a.m., and resumes at 3:00 p.m. This improvement will fill-in the service gap. Service would be expanded to include any trip origin and / or destination that is not located on a fixed route. Thus, Reserve-a-Ride service hours and characteristics would be as follows:

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- 4:00 to 6:00 a.m. service provided from/to anywhere within the City
- 6:00 a.m. to 5:00 p.m. service provided only for trips with an origin and / or destination that is not located along a fixed route.
- 5:00 p.m. to 1:00 a.m. service provided from/to anywhere within the City

The expansion of Reserve-a-Ride service is anticipated to generate an additional 18 riders per day (assuming an average 3 riders per service-hour). This equates to almost 2,600 annual riders. At Reserve-a-Ride's current \$3.00 fare, this is anticipated to bring in about \$14,000 in passenger fare revenues.

Should additional funding be available during the TDP time period, the suggested prioritization of service improvements is as follows:

- Further expansion of Reserve-a-Ride service, with an extra bus running in the peak periods (i.e., Option A, as described in Chapter 4);
- All-day fixed route service to the City's Eastside (subject to employment growth and ridership demand on the City's Eastside); and
- Limited evening fixed route service to key transit market destinations within the City (e.g., Wal-Mart) until 9:00 p.m.

### 5.2 Facility Recommendations

This TDP has also identified the following facility improvements for consideration over the TDP's six-year time period:

- Various maintenance facility improvements
- A bus washing system
- A driver locker room / crew haul space at the maintenance facility
- Various improvements to the HUB passenger transfer center
- Potential conversion to electronic fareboxes
- A bus pull-out lane and aesthetic passenger shelter at the Community Market
- Passenger benches and shelters
- Replacement of existing buses as buses reach the end of their designated useful life
- Potential new buses to address any service expansion projects
- A downtown parking/transit/bicycle facility

Funding from the American Recovery and Reinvestment Act (ARRA) is providing an opportunity to fund many of the above-noted improvements. The Federal Register has identified \$824,000 in potential ARRA funds for Danville. Initial "Phase 1" funds have already been identified for Danville Transit (about \$200,000). A second funding phase

of ARRA projects is proposed for later in 2009. The actual amount to be allocated to Danville for this second phase, however, is yet to be determined from the State. Thus, facility improvements recommended for implementation during the TDP's six-year time period are as follows, assuming availability of ARRA money to fund many of these facility improvements:

### FY 2010

- Two replacement buses
- All identified maintenance, safety and security improvements
- HUB facility improvements
- Passenger benches and shelters

### FY 2011

- One replacement bus
- Bus washing system (construction activity assumed to span over two years)
- Driver locker room / crew haul at maintenance facility (construction activity assumed to span over two years)

### FY 2012

- Three replacement buses
- Bus washing system (construction activity assumed to span over two years)
- Driver locker room / crew haul at maintenance facility (construction activity assumed to span over two years)

### FY 2013

Two replacement buses

### *FY 2014*

Two replacement buses

### FY 2015

No facility improvements or equipment purchases

The proposed bus purchases identified above do not include any new buses for service expansion. The only service expansion that has been proposed for the TDP time period is Reserve-a-Ride expansion, which will not require any addition buses.

As previously noted in Chapter 4, proposed maintenance facility improvements include the following:

- Rehabilitate parking lot
- Improve drainage on east side of building

- Upgrade garage HVAC system
- Replace interior and exterior lights, install sensors
- Paint metal roof and exterior of building
- Add security fencing and automatic gates
- Construct interior wall along bus bays
- Epoxy seal garage floor
- Recover flooring in administrative area with ceramic flooring
- Renovate mass transit building administrative areas on first and second floors to provide additional safety exits
- Install camera surveillance equipment
- Purchase photocopier
- Add card access system to certain doors
- Replace 3 bay doors

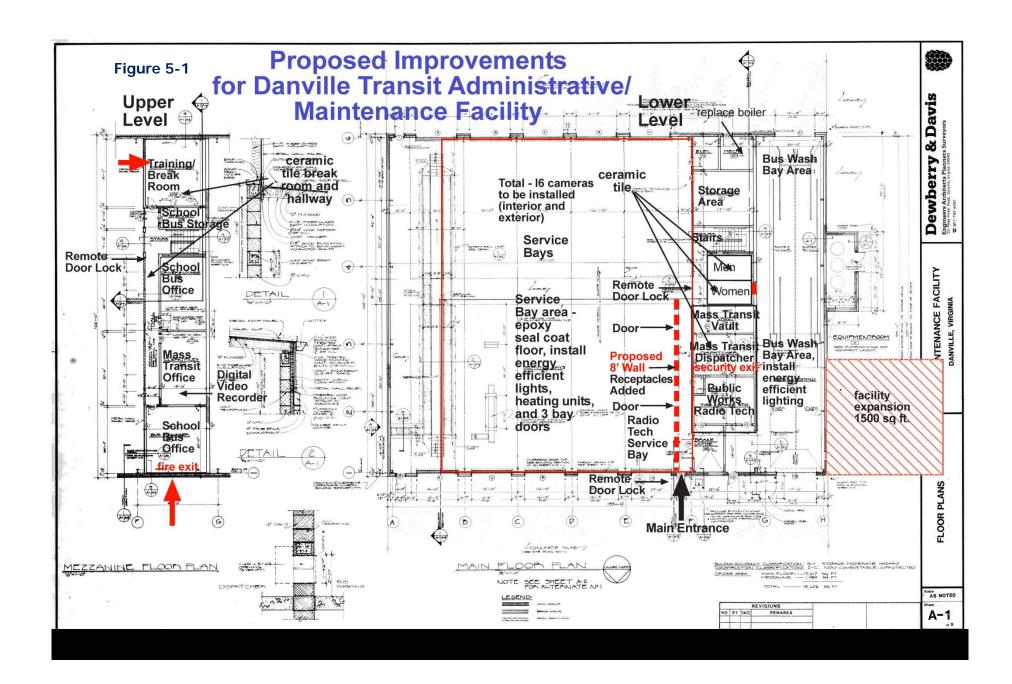
Figure 5-1 illustrates proposed improvements at the Danville Transit maintenance facility.

### 5.3 Other Recommendations

Finally, it is important to note that the TDP identified one potential service improvement and one potential facility improvement that warrant further study. Specifically, this TDP has identified potential service expansion outside of the city limits and into unincorporated Pittsylvania County. There are many institutional issues that will need to be addressed in order for service outside of the City to occur, such as funding, fare structure, type of service, etc. Thus, a study is recommended to determine the feasibility of transit services into the county. No specific timeframe has been identified for this study effort, and no City funding has been assumed in the TDP's financial plan.

This TDP has also identified the potential conversion from manual to electronic fareboxes. However, further consideration is required regarding benefits vs. costs before this recommendation can be identified as a recommended TDP facility improvement.

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### 6.0 CAPITAL IMPROVEMENT PROGRAM

This chapter of the TDP describes capital programs (vehicles, facilities and equipment) required to carry out the operations and services set forth in the TDP service and facility recommendations that were presented in the prior chapter.

### 6.1 Vehicle Replacement Program

As was noted in prior chapters of this TDP, until recently, Danville Transit had seven medium duty buses with a seating capacity for 24 to 28 passengers and five light duty buses with a seated capacity of 17 to 20 passengers. The light duty buses are used for Reserve-a-Ride and Handivan services. Model years range from 2004 through 2008. Bus 738 was in an accident just prior to the completion of this TDP (May 2009) and has been determined to be totaled. Danville Transit is not planning to replace this bus, thus reducing the agency's fleet to a total of 11 medium and light duty buses. The capital improvement plan calls for replacing 10 of the 11 vehicles through the TDP time period with medium duty - standard diesel small buses. The proposed fleet replacement plan is presented in Table 6-1. There are some buses in Table 6-1 that are proposed to be replaced before the end of their designated 7-year useful life. Those buses are anticipated to reach expected end-of-life mileage prior reaching 7-years of service. No fleet expansion is proposed during the TDP time period.

Funding for the first two replacement vehicles (FY 2010) has been identified through ARRA funds. Funding for the remaining replacement vehicles is assumed to come from standard Section 5307 funding that assumes 80% federal funds, with the remaining amount funded by the State and City.

### 6.2 Facility Improvement Program

Chapters 4 and 5 also presented several facility improvements at the maintenance facility, the downtown HUB and at bus stops throughout the transit system. Most of those improvements are proposed to be funded through ARRA funds, and have been programmed to be implemented in FY 2010. The bus washing system and driver locker room/crew haul addition have been identified as being funded separate from ARRA funds, and assume federal 5309 funding, with a state and local match. The proposed time frame for these two improvements is FY 2011 / 2012.

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Table 6-1

Danville Transit

Proposed Vehicle Fleet Replacement Program

### Heavy Duty Buses

			Model	Dec. 08							
Bus	Useful Life	Bus Type	Year	Mileage	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
745	10 years	Freightliner Trolley Bus	2005	6,501	3	4	5	6	7	8	9
746	10 years	Freightliner Trolley Bus	2005	4,284	3	4	5	6	7	8	9

### **Medium Duty Buses**

			Model	Dec. 08							
Bus #	<b>Useful Life</b>	Bus Type	Year	Mileage	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
730	7 years	SUPCHV-SUPREME	2006	74,609	2	3	4	5	R	1	2
731	7 years	SUPCHV-SUPREME	2006	91,574	2	3	4	R	1	2	3
740	7 years	SUPCHV-SUPREME	2006	86,859	2	3	4	R	1	2	3
729	7 years	SUPCHV-SUPREME	2006	83,119	2	3	4	5	R	1	2
732	7 years	INT AEROLITE 320	2005	141,699	3	4	R	1	2	3	4
741	7 years	INT AEROLITE 32NN4	2004	157,656	4	R	1	2	3	4	5

### **Light Duty Buses**

			Model	Dec. 08							
Bus#	<b>Useful Life</b>	Bus Type	Year	Mileage	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
734	4 years	FORD AEROTECH 250	2005	75,401	3	R	1	2	3	4	5
744	4 years	FORD E450 GOSHEN	2005	188,630	R	1	2	3	4	5	6
735	4 years	GAS CHEVY	2008	34,422	1	2	3	R	1	2	3
736	7 years	CHEVY GOSHEN	2008	28,696	1	2	3	4	5	R	1
737	7 years	CHEVY GOSHEN	2008	32,254	1	2	3	4	5	R	1

### Notes:

- 1. Bus 744 is being replaced in Spring 2009 with a 28-passenger medium duty body on chasis bus Chevy 550.
- 2. Bus 738 was in an accident in May 2009 and totaled, and is not included in this table. Danville Transit has no plans to replace this vehicle.
- 2. Buses 730, 731, 738, 740, 729, 732, 741, 736 and 737 are all anticipated to need replacement in either Years 5 or 6 due to high mileage.
- 3. All light duty buses are proposed to be replaced with medum duty buses.
- 4. The trolley buses are lightly used and are not anticipated to require replacement during the TDP's time period.
- 5. Not included in this table is bus 733 which will be retired this year and not replaced.

### 7.0 FINANCIAL PLAN

The financial plan is a principal objective of the TDP. It is in this chapter that an agency demonstrates is ability to provide a sustainable level of transit service over the TDP time period, including the rehabilitation and replacement of capital assets. This chapter identifies potential funding sources for annual operating and maintenance costs, funding requirements and funding sources for bus purchases, and funding requirements and funding sources for other equipment purchases.

### 7.1 Operating and Maintenance Costs and Funding Sources

Danville Transit's FY 2009 operating expenses for its Transportation Enterprise Fund was \$1,437,869. This includes costs for Mass Transit Services (which includes depreciation), Section 5303 costs, vehicle maintenance and repair costs (including fuel) and building maintenance and repair costs. The City's FY 2010 budget reflects \$1,454,893 for Transportation Enterprise Fund expenses. It is important to note that transit expenses and revenues reflected in the City's budget differ from those shown in NTD and State transit expense reports. The City's budget format has been used in this TDP to identify anticipated local funding requirements in a format that is consistent with the City's current budget.

Transit-related revenues in the City's budget come from the following sources:

- Federal assistance (includes Section 5303, 5307 and preventive maintenance funds)
- State operating assistance grants
- Farebox revenues
- Other local revenue sources (advertising, leases/rentals)
- Depreciation
- Revenue transfers for administration expenses
- City general fund contributions to the Transportation Enterprise Fund

Table 7-1 presents the TDP's financial plan, and begins with FY 2009 and FY 2010 known costs and revenues. FY 2010 revenue figures for federal and state assistance that are presented in this table differ slightly from those presented in the City's present Transportation Enterprise Fund budget due to the use of more current figures from the State's Transportation Improvement Program (released in May 2009).

Key expense and revenue assumptions utilized in the TDP Financial Plan (Table 7-1) are as follows:

- Annual O&M costs during the TDP time period are estimated to grow by \$167,300 from FY 2010 to FY 2015 due to anticipated cost of living wage adjustments to Danville Transit's labor costs, and costs for expanding Reserve-a-Ride service in FY 2011 (as noted in Chapter 5 of this TDP). Danville Transit has exhibited the ability to contain costs over the past several years, with minimal increases in its annual O&M costs. Thus, low inflation rates (2%) have been assumed in this TDP.
- Annual state funding increases that were identified by DRPT for the five-year period are as follows:

```
FY 2010-2011 – 1.77%
FY 2011-2012 – 2.90%
FY 2012-2013 – 3.50%
FY 2013-2014 – 3.16%
FT 2014-2015 – 3.16%
```

It is important to note that State formula assistance grants for public transportation operating expenses are awarded on the basis of the total annual amount of state funds available expressed as a percentage of the total annual amount of transit operating expenses, subject to a cap of 95% of eligible expenditures. Eligible expenditures are defined as costs of administration, fuel, tires, and maintenance parts and supplies (payroll costs of mechanics and drivers are excluded). Projections for state operating assistance, as identified in the TDP financial plan, have been provided for planning purposes and may fluctuate up or down based on the aforementioned parameters.

- Annual increases in federal funding were assumed to be similar to state funding increases over the TDP's six-year period.
- Farebox revenues are assumed to increase slightly in FY 2011 due to additional farebox revenues from the expanded Reserve-a-Ride service.
- Miscellaneous and other revenues are assumed to grow at 2 percent per year.
   Depreciation is assumed to remain equivalent to 13.75% of operating expenses (FY 2010's proportion). Revenue transfers for administration expenses are assumed to grow at 2 percent per year.

Using assumptions presented above, funding requirements from the City's General Fund is anticipated to remain below \$200,000 throughout the TDP time period, as shown in Table 7-1. As previously noted, the figures presented in Table 7-1 follow the format utilized in the City's Transportation Enterprise Fund budget, and includes various revenues and expenses that are not included in NTD or State transit financial reports.

## Table7-1 TDP Financial Plan for Funding Annual O&M Costs (Costs in Year of Expenditure Dollars)

TDD Figure in Dieu feur							
TDP Financial Plan for: Service O&M Costs	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Annual Service-Hours							
Fixed Route	17,430	17,430	17,430	17,430	17,430	17,430	17,430
Reserve-a-Ride	4,350	4,350	5,880	5,880	5,880	5,880	5,880
Handi-Van	1,800	1,800	1,800	1,800	<u>1,800</u>	1,800	1,800
Total Transit Service-Hours	21,780	21,780	23,310	23,310	23,310	23,310	23,310
Projected O&M Costs							
Mass Transit Service (Includes Deprec.)	\$1,043,712	\$1,051,856	\$1,119,000	\$1,141,000	\$1,164,000	\$1,187,000	\$1,211,000
Vehicle Repairs & Maint.	\$304,383	\$322,498	\$329,000	\$336,000	\$343,000	\$350,000	\$357,000
Building Repairs & Maint.	\$6,200	\$8,650	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000
Section 5303 Expenses	\$83,574	\$71,919	\$73,000	\$74,000	\$75,000	\$77,000	\$79,000
Total Transit Operating Expenses	\$1,437,869	\$1,454,923	\$1,530,000	\$1,560,000	\$1,591,000	\$1,623,000	\$1,656,000
Anticipated Funding Sources for Operation	s						
Federal	\$445,434	\$508,708	\$518,000	\$533,000	\$552,000	\$569,000	\$587,000
State	\$183,302	\$199,873	\$203,000	\$209,000	\$216,000	\$223,000	\$230,000
Farebox	\$220,540	\$230,540	\$244,000	\$244,000	\$244,000	\$244,000	\$244,000
Other (advertising, miscl.)	\$43,000	\$43,000	\$44,000	\$45,000	\$46,000	\$47,000	\$48,000
Depreciation	\$184,700	\$200,000	\$210,000	\$214,000	\$218,000	\$222,000	\$227,000
Revenue Transfers for Administration	\$152,062	\$127,812	\$130,000	\$133,000	\$136,000	\$139,000	\$142,000
Debt Service Principal	-\$1,172	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
City General Fund Contribution	\$210,003	\$144,990	\$181,000	\$182,000	\$179,000	\$179,000	\$178,000
Local Gov't. Funding Percentage	15%	10%	12%	12%	11%	11%	11%

- 1. Service-hour increases based on service plans described in Chapters 4 and 5 of the TDP.
- $2. \ \ \, \text{O\&M cost estimates for 2009 and 2010 consistent with format presented in City's Transpotation Fund budget.}$
- 2. Projected O&M Costs assumed 2%/year inflation for all costs beginning in 2011.
- 3. Reserve-a-Ride service expansion in 2011 at cost of \$30/hour.
- State funding levels known for FY 2009 and FY 2010 and do not include funds for capital projects/purchases.
   State funding assistance annual growth levels are 2011=1.77%, 2012=2.9%, 2013=3.5%, 2014=3.16%, 2015=3.16%.
- 5. State funding identified in this table are projections and subject to change.
- Federal funding reflects Section 5307 and Preventive Maintenance funds and do not include funds for capital projects/purchases.Federal funding assistanced assumed to grow at same levels as state assistance.
- 7. Reserve-a-Ride service expansion assumed to bring in an additional 3 riders/hour at \$3.00 fares= \$9/service hour add'l farebox revenue.
- Farebox revenues assumed to remain constant throughout 5-year period.
- Other revenues assumed to grow at the rate of inflation.
- 10. Depreciation levels known for FY 2009 and 2010, and are asumed to remain at 13.75% of operating expenses after 2010.
- 11. Revenue transfers for administration appear in City's budget as an expense under "Mass Transit Service" and as a revenue through an account transfer.
- 12. Remaining amount reflects City's general fund contribution through its Transportation Enterprise Fund. City fund contribution identified for FY 2009 matches City budget figures. Contribution identified for FY 2010 does not match because of changes in federal and state funding.

### 7.2 Bus Purchase Costs and Funding Sources

As noted in Chapter 6 of this TDP, bus purchases during the TDP time period are required solely for bus replacements. No service expansion has been proposed that would increase Danville Transit's bus fleet size. A total of 10 buses have been identified for bus replacements during the TDP time period. Medium duty buses have been proposed for all bus purchases. Recent bus purchases by Danville Transit have been at about \$100,000 each. For purposes of this TDP, bus costs have been assumed to increase an average 5% per year.

In FY 2009, Danville Transit just took position of a new bus at a cost of \$97,000. This bus is replacing existing bus #744. Two buses are to be purchased in 2010 – both with ARRA funds. All remaining buses are assumed to be purchased through FTA's Section 5307 Program, with 80% funding provided by the federal government. The remaining 20% is funded by state and local funding sources. This TDP assumes a 10% match by the Commonwealth of Virginia, with the City of Danville funding the remaining 10%.

It is important to note that State capital program grants from the Mass Transit Trust Funds (MTTF) are awarded to all public transportation capital projects deemed to be eligible, reasonable, and appropriate at a uniform level of state participation. The goal is to reach the maximum state share of capital expenses of 95%, but there have not been sufficient funds to support transit capital projects at this level since the Mass Transit Trust Fund was created in 1986. This level of participation or "state share" of capital project expenses is calculated by dividing the amount of state funds available for capital projects each year by the amount needed to support the non-federal share of all eligible transit capital projects for the year. Beginning in FY 2008, additional capital funds from the Transportation Capital Projects bond proceeds authorized under Chapter 896 of the 2007 Acts of Assembly have been available annually at a maximum state matching share of 80% in the Transit Capital Fund.

Table 7-2 presents the TDP financial plan for funding bus purchases through the TDP six-year time period.

### Table7-2 TDP Financial Plan for Funding Bus Purchases (Costs in Year of Expenditure Dollars)

TDP Financial Plan for: Bus Replacements	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Bus Replacements	1 bus	2 buses	1 bus	3 buses	2 buses	2 buses	0 buses
Bus Replacement Costs	\$97,000	\$196,000	\$100,000	\$315,000	\$221,000	\$232,000	\$0
Anticipated Funding Sources:							
Federal - ARRA	\$0	\$196,000	\$0	\$0	\$0	\$0	\$0
Federal - FTA programs	\$77,600	\$0	\$80,000	\$252,000	\$176,800	\$185,600	\$0
State	\$9,700	\$0	\$10,000	\$31,500	\$22,100	\$23,200	\$0
Local	\$9,700	\$0	\$10,000	\$31,500	\$22,100	\$23,200	\$0

- 1. Bus replacements by year identified in Chapter 6 of TDP, and do not include replacement of Bus 738.
- 2. Bus replacement costs estimated at \$97,000 in current year dollars.
- 3. Table reflects 5%/year inflation in bus costs.
- 4. FY 2010 buses being purchased with ARRA funds.
- All other buses assume 80% funding through FTA Section 5307 program, 10% funding from State, and remaiing 10% funding from local government.

### 7.3 Facility Improvement Costs and Funding Sources

Finally, this TDP has identified the need for several improvements at the City's transit garage, some improvements at the City's downtown transit center (the HUB) and some passenger amenities at bus stops (shelters, benches, etc.). Costs for most of these facility improvements are based on recent cost estimates obtained from contractors by the City of Danville, and from past experiences.

Funding for many of these improvements is proposed to come from the American Recovery and Reinvestment Act (ARRA). The Federal Register has identified \$823,000 in ARRA funds for Danville Transit. As noted in the prior section, some ARRA funds have already been committed for bus replacements. A second round of ARRA funds is anticipated to be distributed by the State of Virginia in the Fall 2009. Danville Transit will be submitting a request to fund the projects identified for FY 2010 in Table 7-3 on the following page.

Funding for the bus wash facility and the driver locker room/crew haul facility have been identified from anticipated FTA Section 5309 earmark funds, which reflects the need for about \$475,000 from FTA's Section 5309 program and \$119,000 from state and local funds. A 50/50 match has been assumed, resulting in the need for about \$59,500 from each governmental entity. It is the goal of the City's to complete both projects in FY 2011. Due to the size of these projects, it has conservatively been assumed that work on both projects may continue into early FY 2012.

Table 7-3 presents the TDP financial plan for funding facility improvements through the TDP six-year time period. The use of ARRA funds and anticipated FTA Section 5309 earmark funds results in all capital improvement projects occurring in the early years of the TDP.

Table 7-3
TDP Financial Plan for
Funding Facility Improvements
(Costs in Year of Expenditure Dollars)

TDP Financial Plan for: Facility Improvements	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Maintenance Facility Improvements							
Rehabilitate parking lot		\$151,000					
Drainage improvements		\$20,000					
Garage HVAC system upgrade		\$132,000					
Interior light fixture upgrades		\$23,000					
Paint roof and exterior		\$20,000					
Security fencing/gates		\$85,000					
Interior wall		\$15,000					
Ceramic tile in admin. area		\$15,460					
Epoxy seal garage floor		\$32,000					
Provide additional safety exits		\$30,000					
Surveillance cameras, card access		\$25,000					
Photocopier		\$7,000					
Replace 3 bay doors		\$13,500					
Gen. contractor fees & contingency		\$100,000					
Bus Wash System			\$125,000	\$59,000			
Driver Locker Room/Crew Haul Addition			\$200,000	\$150,000			
Transfer Center Improvements		\$11,850					
Community Market bus pull-out/2 shelters			\$60,000				
Passenger Shelters (4) & Benches (16)		\$45,000					
Total Facility Improvement Costs:	\$0	\$725,810	\$385,000	\$209,000	\$0	\$0	\$0
Antipated Funding Sources:							
Federal - ARRA		\$685,810	\$0	\$0	\$0	\$0	\$0
Federal - FTA programs		\$0	\$308,000	\$167,200	\$0	\$0	\$0
State		\$38,000	\$38,500	\$20,900	\$0	\$0	\$0
Local		\$2,000	\$38,500	\$20,900	\$0	\$0	\$0

<sup>1.</sup> Facility improvement costs identified in Chapter 4 of TDP.

<sup>2.</sup> State operating assistance in FY 2010 to cover Maintenance facility interior wall and surveilance cameras (\$38,000 state and \$2,000 local match)

<sup>3.</sup> ARRA funded projects based on anticipated Danville funding submittal to Virginia.

<sup>4.</sup> Bus wash system and driver locker room/crew haul addition assumes Section 5309 earmark funds with 10% state match and 10% local match. Goal is to complete both projects I 2011, if possible.

<sup>5.</sup> Local match available through City's existing Transportation Fund.

### 8.0 TDP MONITORING AND EVALUATION

This TDP has presented a comprehensive evaluation of Danville Transit service and cost characteristics. Key elements that have been addressed in this TDP effort include:

- Development of goals, objectives and performance standards that are to guide further development of Danville Transit's services;
- A detailed evaluation of existing service characteristics, with identification of system strengths and weaknesses;
- A peer agency review that compares Danville Transit's service and financial characteristics to other similar-sized systems;
- A rider survey that identified existing rider satisfaction with existing services, and improvements that are desired by riders;
- A listing of potential service and facility improvements, for consideration in the TDP:
- Recommended service and facility improvements for inclusion in the TDP, with improvements identified by year; and
- Funding requirements and potential funding sources for recommended service and facility improvements.

This TDP reflects an initial step in future service and facility improvements for Danville Transit. It will be important to coordinate closely with other transportation and land use planning efforts, to continue to monitor service performance, and to provide DRPT with annual updates regarding implementation of TDP service and facility improvements.

### 8.1 Coordination with Other Plans and Programs

The completion of this TDP comes at an opportune time for coordination with the MPO's current Long Range Transportation Plan (LRTP) Update. Goals and objectives from this TDP should be reviewed and incorporated into the LRTP's goals and objectives. This TDP has also identified the need for consideration of transit services into Pittsylvania County. The LRTP can perhaps provide the means to advance this study effort.

It is also important to incorporate TDP findings into the City's next Comprehensive Plan Update. A number of goals and objectives have been identified in this TDP that should also be considered in the City's Comprehensive Plan.

### 8.2 Service Performance Monitoring

This TDP has identified specific system-wide service performance measures to ensure Danville Transit's existing performance characteristics do not degrade substantially. Corrective measures are to be taken if these monitoring efforts identify service performance degradation (e.g., through route alignment adjustments, headway and/or span of service adjustments). Danville Transit presently has a comprehensive monitoring program in place, with ridership, service-hours, service-miles and costs tracked on a monthly basis for all modes (fixed route, Reserve-a-Ride and handivan). Those reports are reviewed quarterly by the City's Transportation Advisory Committee. Thus, no additional service or cost monitoring procedures are proposed.

### 8.3 Annual TDP Monitoring

The DRPT will require submittal of an annual letter that provides updates to the contents of this TDP. Recommended contents of this "TDP Update" letter include:

- A summary of ridership trends for the past 12 months
- A description of TDP goals and objectives that have been advanced over the past 12 months.
- A list of improvements (service and facility) that have been implemented in the past 12 months, including identification of those that were identified in this TDP.
- An update to the TDP's list of recommended service and facility improvements (e.g., identify service or facility improvements that are being shifted to a new year, being eliminated, and/or being added). This update of recommended improvements should be extended one more fiscal year to maintain a six year planning period.
- A summary of current year costs and funding sources
- Updates to the financial plan tables presented in Chapter 7 of this TDP. These tables should be extended one ore fiscal year to maintain a six year planning period.

# APPENDIX A DANVILLE TRANSIT TDP CURRENT OPERATING POLICIES AND PROCEDURES

### DANVILLE TRANSIT OPERATING POLICIES AND PROCEDURES

Effective December 12, 2008

Listed below are policy guidelines, work rules and procedures that have been established for the Danville Transit System. After reading and understanding the contents, please sign and date in the space provided on the last page. A copy of this page will be kept in your personal file.

Each employee will abide by these rules and procedures, and all applicable State and Local laws, rules and procedures, and operate your assigned bus in a safe and professional manner at all times.

**Danville Transit is a drug free workplace.** The unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace. Danville Transit employees must abide by the conditions of the City of Danville's Drug and Alcohol Policy that was provided to you at employee orientation by Human Resources. Employees may obtain an additional copy of the City's Drug and Alcohol Policy by requesting one from your supervisor.

Each employee will possess a current and valid Commonwealth of Virginia Commercial Driver's License noted as Class "B" or "C" and Endorsement "P". Any employee that may happen to lose their Driver's License and/or medical certificate, for any reason, must report the loss immediately to the Transportation Supervisor. Any violation of these rules and procedures, and the rules, procedures, and laws that have been established by State and Local Governments, will be grounds for disciplinary action, as provided for in Section VIII of the procedures for the Administration of the Personnel System of the City of Danville.

### RULES AND PROCEDURES FOR MASS TRANSIT DRIVERS

- 1. Monitor the farebox to ensure passengers deposit the appropriate fare in the farebox and to ensure your passenger count is correct. Drivers must request that passengers unfold dollar bills and show the bill to the driver before the money is placed in the farebox.
- 2. Drivers **should not touch** cash fare revenue that is received from passengers unless the passenger is disabled <u>and is unable to reach the farebox</u>.
- 3. Collect fare from disabled passengers who cannot reach the farebox before they board. Under this condition, the driver should place the money in the farebox for the disabled passenger immediately. All coin, dollar bills and tokens must be deposited into the farebox by passengers who are able to access the farebox, not by the driver.
- 4. Drivers will not allow anyone to ride the bus without paying the proper fare. The base fare for the fixed-route service is one dollar (\$1). However, elderly persons (60 years old or older), persons with disabilities and Medicare cardholders are charged fifty cents (\$.50) per one-way fixed-route bus trip. Medicare cards can be issued to persons under 65 years of age. To ensure that the person presenting a Medicare card is the authorized individual, there may be a request for additional proof of identity to check the validity of the Medicare card. Danville Transit also issues certification stickers to eligible half fare passengers. One child 4 years old or younger may ride free with a paying adult on the fixed-route service. The Handivan fare is \$2 per one-way trip and the Reserve A Ride fare is \$2 for a trip that begins and ends at a bus stop, other Reserve A Ride trips are \$3.

- 5. Drivers should not pull away from the curb until all passengers have deposited their fare into the farebox. Drivers should also make a good faith effort to ensure the aisle is clear of objects (i.e. bags, shopping carts and strollers).
- 6. Always pull over to the curb and come to a complete stop before boarding or dropping off passengers. If a vehicle or vehicles are blocking the bus stop location, then position the bus to the closest area near the bus stop that is not blocked and board passengers there. Please advise passengers that you are boarding at this location only because the bus stop is blocked.
- 7. The bus should be aligned to the curb when the bus is stopped. When pulling over to the curb to stop for passengers, position the bus so it does not block the intersection.
- Drivers should use turn signals when stopping at bus stops to inform other drivers of your intent to board and de-board passengers and when pulling away from a bus stop into traffic.
- Drivers must use flashers before stopping at bus stop locations on Piney Forest or Riverside Drive.
- 10. Drivers must not pass up passengers that are standing at a bus stop unless the the person or persons has been suspended from using the transit service.
- 11. Employees will be on time for the start of their shift. If you are unable to report for your shift on time due to unexpected illness you should call your supervisor two (2) hours in advance of your report time to arrange for a replacement. Morning shift drivers should contact their supervisor by 4:00 a.m. Tardiness and absenteeism will not be tolerated.
- 12. Employees are to notify supervisors the same day in the event a physician documents that you are not to work the following day due to illness.
- 13. Employees will not be allowed to leave work before the end of their shift, unless authorized and approved leave is taken. Drivers requesting leave must complete the appropriate form in advance of taking time off.
- 14. While on duty each employee will be in full uniform according to the current dress code. Drivers will receive shirts and a jacket from Danville Transit as part of the standard uniform. Drivers are responsible for providing dark navy or black pants as part of the uniform. Blue jeans are not permitted. Uniform items will not be worn off duty unless it is for a temporary stop to or from work. Baseball style hats are permitted as long as the bill of the hat is placed forward and the color is consistent with the uniform. Cowboy hats and other style hats are not permitted.
- 15. Drivers will not enter a private residence while on duty.
- 16. Full time drivers who have been involved in an accident will report to work the next day at their scheduled report time. Your supervisor will assign non-driving duties until post accident test results are received and reviewed.
- 17. In the event post accident testing is required, part-time drivers who have been involved in an accident will report back to work after the post accident test results are received and reviewed.

- 18. Drivers should maintain incident and accident report forms on their clipboards at all times.
- 19. Report <u>all</u> accidents or incidents to your supervisor immediately regardless of how minor they are and remain at the scene until released by your supervisor. Minor incidents can include but not limited to the following; hitting a no parking sign or telephone pole, hitting a dog or cat, a passenger falling or slipping in the bus, a passenger falling after he or she gets off the bus).
- 20. In the event of an accident or incident inform the supervisor on duty if a wrecker or ambulance is necessary. Do not move the bus unless instructed to do so by your supervisor or police.
- 21. Drivers should complete their incident/ accident report immediately at the scene and obtain in writing all witness information using the departmental form. This form should be returned to the supervisor no later than the end of your shift. In case of an accident, drivers should ask passengers and the driver and passengers from other vehicles involved in the accident about their physical condition regardless of who is at fault.
- 22. Drivers are responsible for maintaining the following items at the beginning of their shift; Farebox slip, 2) Passenger count sheet, 3) Pre-trip inspection sheet, 4) Vehicle Damage sheet, 5) Incident/Accident Report form 6) Tokens and 7) Transfers
- 23. Never drive recklessly while operating a City Bus.
- 24. Fixed route drivers should always operate their bus in the right hand lane unless your supervisor instructs or approves you to do otherwise.
- 25. Bus doors will always be closed when the bus is in motion and bus doors will always be closed when the driver is standing outside the bus or is out of the seat for any reason or is away from the bus.
- 26. Do not speak on a cell phone while the bus is in motion unless you are operating the Reserve A Ride bus.
- 27. Anytime your bus is parked, the parking brakes must be applied.
- 28. Bus keys must be returned to the administrative office at the end of the second shift each day or when the bus will not be used after a work period has concluded.
- 29. As part of your pre-trip inspection, drivers should review the interior and exterior of the bus for any suspicious material or items. If anything is considered suspicious, please notify your supervisor immediately.
- 30. If at any time while you are located at the mass transit administrative/ maintenance facility or Transfer Center (Hub) and you notice an unfamiliar person or suspicious activity, please inform your supervisor. If the supervisor is unavailable to ask the person what they are doing on the property then the driver should ask the person.

- 31. In the event a security incident occurs on your bus, drivers should first attempt to activate the panic button and communicate the conditions of the situation over the radio. Once the panic button is activated the radio on your bus becomes live. If you cannot hold onto the radio in your hand due to the incident, you will be heard as long as you have hit the panic button. If you cannot communicate via the radio due to the security incident and Emergency Services staff or the Police Department contacts you over the radio and you are requested to respond please indicate, "I am fine the bus is operating properly". This message will confirm that you are in need of assistance.
- 32. In the event your supervisor informs you of a security incident, dependent upon the circumstances, the supervisor on duty will either direct all drivers to go the end of your bus line and hold, direct you to a different location or inform drivers to continue on your route until further notice. During a security incident, drivers should not travel to the same location such as the Hub, Piedmont Mall or mass transit garage, unless your supervisor directs you to do so.
- 33. Drivers should report any problems with passengers immediately to your supervisor. Never use profanity in the workplace or directed towards, or in the presence of your passengers.
- 34. Prior to starting your bus run, drivers should complete a pre-trip inspection and document new damage to your bus and make your supervisor aware of any new damage to the bus.
- 35. Report any vehicle problems or adjustments needed such as loose lugnuts and lift failures immediately to the Transportation Office that could disrupt operations or cause passenger inconvenience, injury or property damage. After reporting related information to the Transportation Office do not move the vehicle until directed by your supervisor.
- 36. Both morning and afternoon shift drivers must identify whether the public announce system is operating properly or not as part of your pre-trip inspection. The morning shift driver must document on your pre-trip inspection form that the lift has been inspected and whether it is operating properly or not.
- 37. Follow your assigned route and time schedule, unless directed otherwise by your supervisor. Your supervisor must approve any trip deviation from your fixed route. When traveling to Coleman Market Place along Central Boulevard in fixed-route or demand response service, drivers should enter the shopping center by turning left at the signal light onto Holt Garrison Parkway. Drivers should not turn left into the shopping center prior to the Holt Garrison Parkway intersection at Coleman Market Place drive. This intersection on Central Boulevard is not designed for large trucks and buses.
- 38. Drivers are not to have radios, tape players, etc. on the bus including scanner units.
- 39. Drivers are not permitted to stop for food, drink or bathroom breaks in front of Hardee's or other businesses on Riverside Dr. or along Piney Forest Road due to traffic flow issues. All bus drivers (fixed-route, Handivan and Reserve A Ride) are not permitted to operate their vehicle inside restaurant parking lots, convenience store parking lots or other business parking lots to obtain food and drink items.
- 40. Smoking is not permitted on any Mass Transit Bus or the Handivan.

- 41. Do not eat or drink on bus while bus is in motion.
- 42. Never leave your bus unattended without taking transfers and tokens off the bus with you. You are financially responsible for the bus tokens issued to you. If you have to leave the bus, call the Transportation Office and inform them you are taking a 10-7.
- 43. As soon as you return to the bus from a 10-7 (break), call the Transportation Office and say "10-8" over the radio. This does not pertain to the scheduled break period.
- 44. Wheelchairs must be properly secured for each trip before placing the bus in motion unless otherwise authorized by your supervisor. *Drivers must secure the seat belt straps* to ensure the passenger is properly secured. The transit system requires that an individual permit his or her wheelchair to be secured. However, service cannot be denied to a wheelchair user if a wheelchair cannot be secured on a vehicle either in fixed route or Handivan service.
- 45. Drivers will not require a wheelchair user to transfer to another seat.
- 46. Where necessary or upon request, drivers shall assist individuals with disabilities with the use of securement systems and lifts even if drivers are required to leave your seat to provide this assistance.
- 47. Drivers shall permit individuals with disabilities who do not use wheelchairs to use a vehicles's lift to enter the vehicle.
- 48. All first shift drivers scheduled to complete fixed route, Reserve A Ride and Handivan operations should make sure their vehicles are completely full of fuel before they begin their shift. Fixed route bus drivers should never go off route during revenue service hours, (6:00 a.m. until 6:15 p.m.) to fuel their vehicle. Also, never fuel a vehicle while a passenger is on board a bus regardless of the service mode.
- 49. All second shift drivers scheduled to complete fixed route, Reserve a Ride and Handivan operations must fuel their vehicles before clocking out.
- 50. Drivers are responsible for removing their trash from their vehicle at the end of their shift.
- 51. At the end of your shift drivers must complete your run to the end of the line as designated by your supervisor.
- 52. At the end of the 5:40 p.m. bus run, if a passenger requests to be taken to a destination beyond the end of the line then drivers should request permission from your supervisor.
- 53. Transfers must be communicated to base <u>before the next departure time from the Hub</u>. In addition, if you are running late and do not expect to arrive at the Hub on time, drivers must communicate that information to base in advance of the next departure time whether you have transfers or not.
- 54. The supervisor on duty will contact drivers if a transfer to your vehicle is needed.

- 55. Drivers should pull out from the Hub in order if all buses have arrived at the Hub prior to the departing runtime. The first vehicle arriving at the hub should be the first vehicle leaving the hub unless the first bus to arrive at the Hub must wait for transfer connections and other vehicles do not need to wait. Drivers should notify each other by using their horn in the event passengers are attempting to board a bus as buses are pulling out.
- 56. Drivers should not take breaks (10-7's), which cause the service to be late unless its an emergency.
- 57. Fixed route drivers are responsible for ensuring that the service schedule is being met and that you are not leaving or driving past the scheduled time-check point locations prior to the times identified in the transit guide.
- 58. In the event you are unable to leave within ten (10) minutes of a scheduled departure time you must notify your supervisor in advance.
- 59. Fixed route bus drivers should not arrive at the Hub any earlier than 7 minutes before the next scheduled bus run.
- 60. Handivan drivers should follow the trip schedule as directed by your supervisor and will be responsible for completing other assignments when trips are not scheduled. Handivan drivers should also notify base when you expect that you will be unable to leave within 10 minutes of a scheduled departure time.
- 61. Bus runs will be assigned every month or as directed by the Transportation Office.
- 62. The bus you operate, the shift you work, and transportation service provided by drivers is subject to be changed when deemed necessary. Transportation service includes fixed route bus service, Reserve A Ride, Handivan and shuttle operations. In addition, drivers may be assigned duties related to cleaning transit vehicles.
- 63. Refusal to complete an assigned run and duties including bus cleaning duties will result in disciplinary action including up to dismissal.
- 64. The telephones in the office are for Official City business. Any personal calls that have to be made will be held to a minimum.
- 65. A designated individual or individuals may periodically ride your bus to see how you drive and report violations of these rules and procedures.
- 66. Fixed route bus drivers will announce stops at transfer points, the route midpoint and major destinations such as Purdum Woods Apartments, Ballou Park, Ma Hollins, Virginia Employment Commission, Wal-Mart and Piedmont Mall.
- 67. Fixed route drivers shall announce any stop on request of an individual with a disability.
- 68. Drivers shall not refuse to permit a passenger who uses a lift to get off from a bus at any designated stop, unless the lift cannot be deployed, the lift will be damaged if it is deployed or temporary conditions exist at the stop, not under the control of the transit system that prevent the safe use of the stop by all passengers.

- 69. Drivers shall ensure that adequate time is provided to allow individuals with disabilities to complete boarding or getting off from the vehicle.
- 70. When an individual with a disability enters a vehicle and because of a disability the individual needs to sit in a seat or occupy a wheelchair securement location, the driver shall ask persons who are not disabled or elderly to move in order to allow the individual with a disability to occupy the seat or securement location.
- 71. After arriving at the main transfer point drivers will remain near their bus and provide information to disabled passengers in order to distinguish their bus from other buses that are traveling to the same stops (i.e. #1 Kemper Road and #3 Edgewood, #4 Temple Terrace and #1 New Design-Nor-Dan).
- 72. Service animals will be permitted in the vehicles and shelters. Drivers may not request documentation from a passenger certifying that the animal has been trained to assist disabled individuals. Service animals are not limited to dogs. Other animals including monkeys, ponies and pigs but not limited to; may be considered service animals.
- 73. Passengers may bring animals onto the bus for transportation to a veterinarian if the animal is protected in a carrying case.
- 74. Passengers may be transported using respirators or portable oxygen.
- 75. In the event, a disabled passenger requests route and schedule information in an accessible format, please inform the passenger to contact the office or inform the passenger that the following options are available;

**Voice** – Route and Schedule information can be communicated over the phone.

**E-Mail-** Route and Schedule information can be sent via E-Mail. **Large Print-** Route and Schedule information can be enlarged to certain point sizes upon request.

My signature below indicates that I have read and understand the content of these rules, policies and procedures. I also understand that by signing below that if I violate these work rules, policies or procedures I am subject to disciplinary action including dismissal.

EMPLOYEE	DATE
	Marc Adelman
	Transportation Service Director

# APPENDIX B DANVILLE TRANSIT TDP PEER AGENCY REVIEW ANALYSIS

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# 1. OVERVIEW OF PEER ANALYSIS PROCESS

A peer analysis provides the means to compare various performance characteristics of a transit agency to their transit systems of similar size. Transit agencies report such information to the Federal Transit Administration (FTA), which records the information annually in the National Transit Database (NTD). Agencies have strict requirements with regards to the manner in which cost and service characteristics are reported to the NTD. Thus, the NTD provides a consistent set of measurable data that can be used in a peer systems analysis.

While a peer analysis based on NTD data provides operational service and financial information, it is important to keep in mind other aspects of service quality that are not reported in the NTD, such as passenger satisfaction, vehicle cleanliness and comfort, schedule adherence and route connectivity. It is also important to keep in mind unique operating and financial characteristics that may be associated with a particular transit agency.

The FTA's National Transit Database is the only comprehensive source of validated operating and financial data reported by transit systems nationwide. This database is updated annually with information submitted by each transit system. The FTA reviews and confirms the accuracy of the information received and publishes a final report after a reporting transit system successfully responds to all comments and inquiries. The NTD is used by the FTA and other federal, state, and local agencies as a resource to help guide public investment decisions, shape public policy, and develop planning initiatives. The NTD reports various standard measures of performance that allow decision makers and other stakeholders to determine the efficiency and effectiveness of transit services on a local, regional and national basis. It is important to note that smaller systems (i.e., operating with fewer than 9 peak vehicles) have the option of taking an exemption from NTD reporting. Danville Transit does report its operational service and financial information to NTD. Some of Danville Transit's peer agencies that have been used in this analysis, however, utilize the exemption (Goldsboro, NC and Columbus, IN).

## 1.1 Technical Memorandum Contents

The remainder of this technical memorandum contains the following: Section 2 describes the process used to select the Danville Transit's (DT) peer transit systems; Section 3 provides an overview of the peer system's operating and capital budgets, ridership, service area and passenger fare characteristics of DT compared to the peers; and Section 4 provides a detailed comparison of specific service productivity measures. These productivity measures focus on: vehicle utilization, service supply, service productivity, cost efficiency and vehicle maintenance performance, characteristics. A summary of the financial information follows in Section 5. This section highlights the revenue sources used by DT and its peers to fund O&M and capital costs. Section 6 summarizes the key findings of the Peer Analysis.

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# 2. PEER SELECTION PROCESS

Select criteria were used to determine transit systems that have similar service area characteristics. As shown in Table 2-1, criteria included service area size, population and the number of peak vehicles in operation on a typical weekday.

Table 2-1: Criteria for Selecting Peer Transit Systems

Criteria for Peer Transit Systems	Selection Criteria
Service area size	Primary
Population	Primary
Vehicles operated during peak periods	Primary

The following six candidate peer transit systems were identified based on the application of the selection criteria.

- Petersburg Area Transit (Petersburg, VA),
- Johnson City Transit (Johnson City, TN),
- Goldsboro-Wayne Transit Authority (Goldsboro, NC),
- Columbus (Columbus, IN),
- County Commuter (Hagerstown, MD), and
- Middletown Transit System (Middletown, OH).

Table 2-2 summarizes general population, service area size and service characteristics for the peer transit systems selected for analysis. Of the six peer systems, half have a peak vehicle fleet that is comparable or larger than and half have a vehicle fleet smaller than that of Danville Transit. With regard to service area population, three are larger and three are smaller than DT's service area population. With regard to the service area size, three are smaller and three are larger than DT's service area size.

**Table 2-2: Peer Transit Agency Comparisons** 

	FY 2007 Service Area			Peak Vehicles		Annual Rev. Vehicle-Hours			Annual Rev. Vehicle-Miles				
City	Population	Square Miles	Population Density	Bus	Demand Response	Total	Bus	Demand Response	Total	Bus	Demand Response	Total	Days of Service
Petersburg, VA	31,300	7	4,471	12	5	17	42,179	4,689	46,868	431,704	31,789	463,493	Mon-Sat.
Johnson City, TN	49,381	33	1,496	9	10	19	25,124	23,924	49,048	351,192	175,444	526,636	Mon-Sat.
Goldsboro, NC	57,000	35	1,629	4	2	6	17,002	5,672	22,674	196,961	95,338	292,299	Mon-Sat.
Columbus, IN	39,000	21	1,857	4	3	7	15,964	7,082	23,046	179,450	68,259	247,709	Mon-Sat.
Hagerstown, MD	44,608	70	637	8	2	10	26,535	4,981	31,516	410,438	69,846	480,284	Mon-Sat.
Middletown, OH	49,490	20	2,475	4	2	6	13,856	4,260	18,116	209,226	53,528	262,754	Mon-Sat.
Peer System:													
Low	31,300	7	637	4	2	6	13,856	4,260	18,116	179,450	31,789	247,709	n/a
High	57,000	70	4,471	12	10	19	42,179	23,924	49,048	431,704	175,444	526,636	n/a
Average	45,130	31	2,094	7	4	11	23,443	8,435	31,878	296,495	82,367	378,863	n/a
Danville, VA	48,411	25	1,936	6	4	10	17,429	3,626	21,055	264,480	57,798	322,278	Mon-Sat.

#### Notes:

(1) All statistics from FY 2007 National Transit Database transit agency profiles or from phone calls to transit agencies.

#### PEER SYSTEM OVERVIEW 3.

A general overview of peer system's operating and capital expenses, ridership, service area and passenger fare characteristics was completed prior to conducting a detailed assessment of specific financial, ridership and service characteristics.

#### 3.1 **Annual Operating and Capital Expenses**

Table 3-1 summarizes the annual operating and capital expenses for the peer systems. A breakdown of the level of funding by source is also provided. Key characteristics are as follows:

#### Operating Expenses

- DT's operating budget of \$974,048 was nearly half of the peer average of \$1.8 million. Of the six peer systems, Middletown, OH was most similar to DT with respect to the size of the annual operating budget.
- DT derived a significantly higher share of its operating revenue from fares (22 percent of the total budget) than the peer average (15 percent).
- DT was similar to the peers with local funding for operating (24 percent vs. 22 percent).
- Federal funds comprise DT's largest operating funding source (30 percent in FY 2007, which is presently about 36 percent). This was about two-thirds of the peer average of 45 percent.

## Capital Expenses

- DT's 2007 capital expenses was the second highest (\$967,140) compared to the 2007 peer average. This is likely due to construction of the Danville's downtown HUB that opened in October 2007. It should also be noted that 2007 capital expenses of the individual peers ranged from a low of \$68,933 to a high of \$2.6 million. In addition, capital expenses by agency typically vary significantly by year depending on the type and level of expenditure programmed for each particular year.
- Compared to its peers, DT had a slightly lower level of federal participation in funding capital projects (80 percent) than the peer average (88 percent). It should be noted that capital expense data from the peer agencies was limited, and the peer average includes one agency that reported 100% federal funding for capital expenses.
- DT was significantly more reliant on local funds for capital (12 percent versus the peer average of 4 percent).

A more detailed analysis of the operating and capital expenses is provided in Section 4 of this report.

#### 3.2 **Annual Ridership**

Annual ridership, as measured in passenger trips, reflects is the total number of boardings made by users of the transit system. A passenger trip is recorded every time a person boards a transit vehicle, including multiple transfers that may occur between the trip origin and the final destination. As shown in Table 3-2:

DT's overall system ridership (217,148) was approximately 39 percent lower than the peer average (358,275);

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PEER ANALYSIS

Table 3-1: Comparison of 2007 Operating and Capital Budgets

	PAT- Petersburg, VA	JCT- Johnson City, TN	GWTA- Goldsboro, NC	ColumBUS- Columbus, IN	County Commuter- Hagerstown, MD	MTS- Middletown, OH	Peer Average	Danville Transit- Danville, VA
Fares	17%	11%	n/a	n/a	17%	12%	15%	22%
Local Assistance	18%	22%	n/a	n/a	28%	24%	22%	24%
State Assistance	14%	22%	n/a	n/a	20%	10%	17%	19%
Federal Assistance	51%	42%	n/a	n/a	35%	54%	45%	30%
Other Funds	1%	3%	n/a	n/a	0%	0%	1%	4%
Total Operating Budget	\$2,608,783	\$2,008,726	\$2,180,705	n/a	\$1,631,727	\$1,037,419	\$1,821,664	\$974,048
Local Assistance	4%	11%	n/a	n/a	10%	0%	4%	12%
State Assistance	8%	10%	n/a	n/a	10%	0%	8%	8%
Federal Assistance	88%	79%	n/a	n/a	80%	100%	88%	80%
Other Funds	0%	0%	n/a	n/a	0%	0%	0%	0%
Total Capital Budget	\$2,615,747	\$144,590	n/a	n/a	\$77,120	\$68,933	\$726,598	\$967,140

<sup>&</sup>quot;n/a" indicates information not available for the identified transit agency

Table 3-2: Comparison of 2007 Annual Ridership

	PAT- Petersburg, VA	JCT- Johnson City, TN	GWTA- Goldsboro, NC	ColumBUS- Columbus, IN	County Commuter- Hagerstown, MD	MTS- Middletown, OH	Peer Average	Danville Transit- Danville, VA
Annual Ridership (passenger trips)	566,631	532,500	234,324	218,048	347,979	250,167	358,275	217,148
Bus	558,481	431,532	208,835	206,812	337,805	239,093	330,426	199,903
Demand Response	8,150	100,968	25,489	11,236	10,174	11,074	27,849	17,245

- DT's annual bus ridership (199,903) was 40 percent lower than the peer average (330,426);
- DT's demand response ridership (17,245) was 38% lower than the peer average (27,849).
- Of the peers, Goldsboro, Columbus and Middletown were most similar to DT with respect to overall system, bus, and demand response ridership.

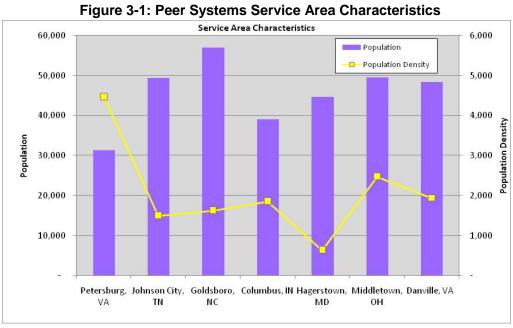
It is important to note that although Danville's fixed route and demand response ridership is lower than the peer average, its service hours are also lower. For example, Danville Transit operates 26 percent fewer fixed route bus hours and 57% fewer demand response bus-hours. The next section of this report (Section 4.0) provides equitable comparisons of costs and ridership on a service level basis.

#### 3.3 Service Area Characteristics

Figure 3-1 summarizes and compares the service area characteristic (service area population, service area miles and population density) for DT and the peer systems. Although the NTD data is the best available source for this information, caution should be used when interpreting service area population and population-based measures. There are sometimes variations with regard to the way agencies report this information. NTD guidelines request that systems report service area size and population based on ADA definitions (i.e., ¾-mile boundary around all fixed routes). However, not all systems calculate their boundaries correctly or comply with NTD's system of calculation.

As shown on the graph, the DT service area characteristics were very similar to that of the peer system average.

- DT's service area (25 square miles) was approximately 6 square miles smaller than the peer average.
- DT's service area population (48,411) was 5.1 percent higher than the peer average
- DT's service area density (1,936) was about 8 percent less than the peer average.



Source: 2007 FTA National Transit Database.

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## 3.4 Services Provided

All peer systems operate both fixed route and demand responsive services. It is important to note that Danville Transit's Reserve-a-Ride service is reported in NTD as demand responsive service. Fixed route service hours for each peer agency are as follows:

Petersburg, VA: 5:45 a.m. to 7:00 p.m., Monday through Thursday

5:45 a.m. to 8:00 p.m., Friday and Saturday

Johnson City, TN: 6:15 a.m. to 6:15 p.m., Monday through Friday

8:15 a.m. to 5:15 p.m., Saturday

Goldsboro, NC: 5:30 a.m. to 6:30 p.m., Monday through Friday

9:30 a.m. to 6:30 p.m., Saturday

Columbus, IN: 6:00 to 7:00, Monday through Saturday

Hagerstown, MD: 6:15 a.m. to 9:45 p.m., Monday through Friday

7:45 a.m. to 9:45 p.m., Saturday

Middletown, OH: 6:30 a.m. to 6:30 p.m., Monday through Friday

8:30 a.m. to 4:30 p.m., Saturday

Danville provides fixed route service from approximately 6:00 a.m. to 6:00 p.m., Monday through Saturday. Unlike the other peer systems, it also provides Reserve-a-Ride service from 4:00 to 6:00 a.m. and from 6:00 p.m. to 1:00 a.m.

#### 3.5 Fare Structure

Fare structures have also been compared for the peer transit agencies. Table 3-3 presents each agency's fare structure. Columbus, OH had the lowest fixed route regular adult fare of \$0.25. Johnson City had a regular adult fare of 0.60 and the other peer systems had regular adult fares of either \$1.00 or \$1.25. Danville's adult fare is \$1.00. All agencies except Columbus, OH provide discounted elderly/disabled fares. Goldsboro's and Hagerstown's elderly/disabled fare varies depending on the time of day (peak vs. off-peak time periods). Three systems also provide discounted student fares and two systems offer discounted college student/staff fares.

**Table 3-3: Comparison of Fare Structure** 

			Fixed- Di	scount Rate			
		Elderly/Disa	bled (over 60)		College Student/	Demand	
City	<b>Fixed Route</b>	Peak	Off Peak	Student (K-12)	Staff	Response	<b>Transfers</b>
Petersburg, VA	\$1.00	\$0.50	\$0.50	\$0.50	\$1.00	\$1.00	\$0.00
Johnson City, TN	\$0.60	\$0.30	\$0.30	\$0.30	\$0.00	\$1.20-\$5.00*	\$0.10
Goldsboro, NC	\$1.00	\$0.50	\$1.00	\$1.00	\$1.00	unk	\$0.00
Columbus, IN	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.50	\$0.00
Hagerstown, MD	\$1.25	\$0.95	\$0.60	\$0.85	\$0.85	\$2.00	\$0.00
Middletown, OH	\$1.25	\$0.60	\$0.60	\$1.25	\$1.25	\$2.50	\$0.00
Peer System:							
Low	\$0.25	\$0.25	\$0.25	\$0.25	\$0.00	\$0.50	\$0.00
High	\$1.25	\$0.95	\$1.00	\$1.25	\$1.25	\$2.50	\$0.10
Average	\$0.89	\$0.52	\$0.54	\$0.69	\$0.73	\$2.53	\$0.02
Danville, VA	\$1.00	\$0.50	\$0.50	\$1.00	\$1.00	\$2.00-\$3.00**	\$0.00

<sup>\*</sup> Johnson City fare for D.R. service is \$1.20 if pick-up/drop-off location is inside 3/4 mile of fixed route, \$2.40 if it is outside 3/4 mile of fixed route, and \$5.00 for same day reservations

<sup>\*\*</sup> Danville fare for D.R. Reserve-a-Ride seservice ranges from \$2.00 to \$3.00, depending on pick-up/drop-off location.

# 4. SERVICE PRODUCTIVITY COMPARISONS

This section presents a detailed comparison of specific service productivity measures. These productivity measures focus on: vehicle utilization, service supply, service productivity, cost efficiency and vehicle maintenance performance, characteristics.

#### 4.1 Vehicle Utilization

• Vehicles Available: As shown in Figure 4-1, the overall DT fleet size reported in 2007 was 18 percent smaller than the peer average (DT 16, peer average 20). There were 9 vehicles in the DT fixed route bus fleet compared to a peer average of 12 vehicles, with 7 vehicles in the DT demand response fleet compared to a peer average of 8 vehicles. The average age of the DT bus vehicle fleet was 30 percent lower than the peer average (4.1 years vs. 6.0 years), while average age of the DT demand response fleet was 40 percent lower (3.1 years vs. 5.2 years).

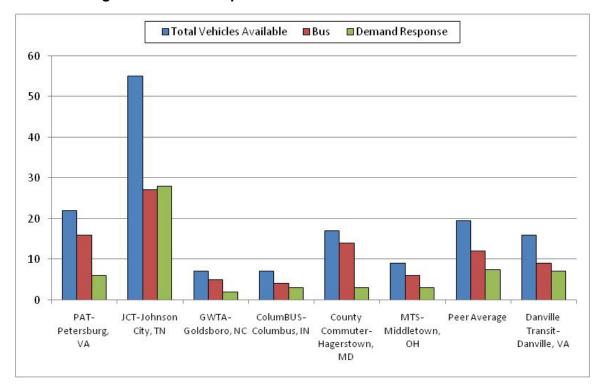


Figure 4-1: Peer Comparison - Total Vehicles Available

 Peak Vehicles: As shown in Figure 4-2, DT operated 1 less peak vehicle than the peer average (DT 10, peer average 11).

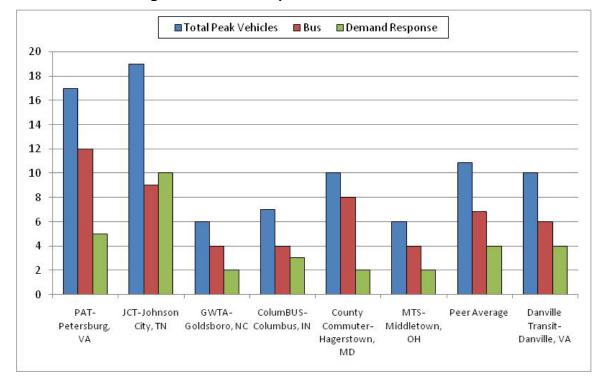


Figure 4-2: Peer Comparison - Peak Vehicles

- Revenue Hours per Peak Vehicle: Overall DT's peak vehicles were in service for less revenue hours than the peer average (DT 2,106, peer average 3,097 revenue hours per peak vehicle). (See Figure 4-3). When comparing bus service, DT provided 2,905 hours per peak vehicle compared to the peer average of 3,555 hours. Similarly, DT demand response provided less revenue hours per peak vehicles (DT 907, peer average 2,191).
- Revenue Miles Per Peak Vehicle: Overall DT operated about 16 percent less revenue miles per peak vehicle than the peer average (DT 32,228, peer average 38,484) (See Figure 4-4). DT buses were traveling an average of 3 percent less miles per peak vehicle than the peer average (DT 44,080, peer average 45,452) and DT demand response vehicles traveled 44 percent less miles per peak vehicle than the peer average (DT 14,450, peer average 26,002). Goldsboro's demand response data significantly brings up the peer average.

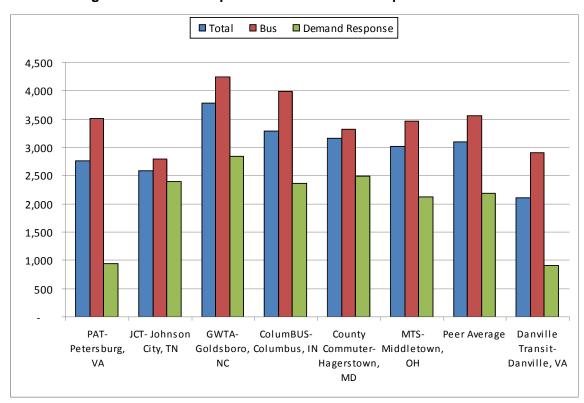
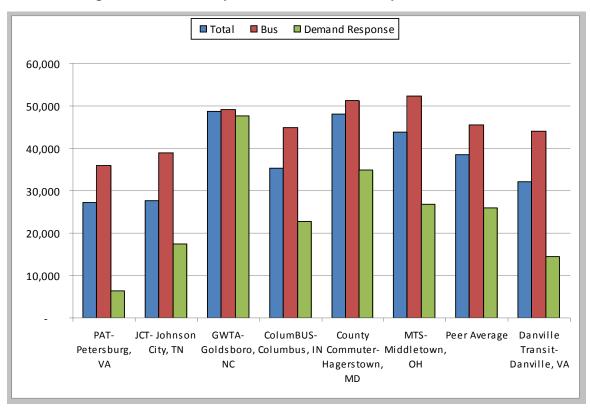


Figure 4-3: Peer Comparison – Revenue Hours per Peak Vehicle





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# 4.2 Service Supplied

• Transit Service per Capita: Overall DT provided 43 percent fewer revenue hours of service per capita (service area population) than the peer average (0.43 revenue hours of service per capita for DT relative to the peer average of 0.76 revenue hours of service per capita). For bus service, DT provided 37 percent fewer revenue hours of service per capita (DT 0.36, peer average 0.57). For demand response service, DT provided 60 percent fewer revenue hours of service per capita than the peer average (DT .07, peer average .19). As shown on Figure 4-6, DT provided less miles of transit service per capita (6.66) than the peer average (8.84). In comparing bus service miles per capita, DT provided less miles per capita (5.46) compared to the peer average (7.06). DT also provided 33 percent less demand response service revenue miles per capita (1.19) than the peer average (1.77).

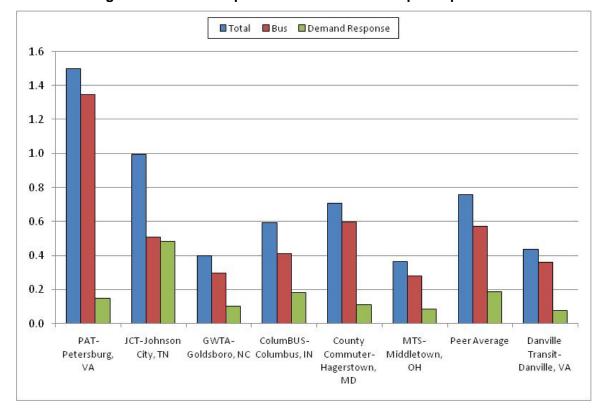


Figure 4-5: Peer Comparison – Revenue Hours per Capita

DANVILLE VIRGINIA PEER ANALYSIS

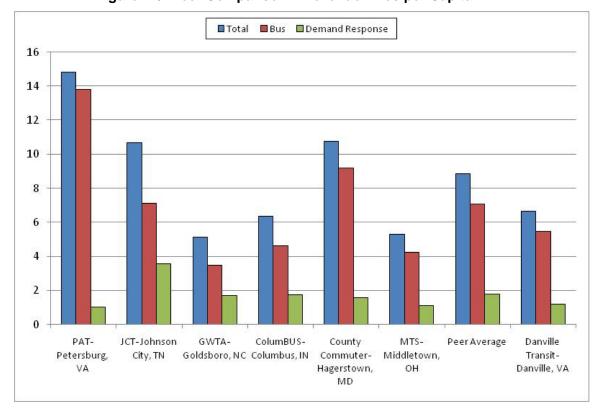


Figure 4-6: Peer Comparison - Revenue Miles per Capita

• Service Area: Overall DT provided 55 percent less than the revenue hours per square mile of service area than the peer average (842.2 to 1,880.5) (See Figure 4-7). The same was true with respect to both bus (54 percent less) and demand response service (60 percent less). Similarly, DT provided 44 percent less revenue miles per square mile of service area (12,891 to 23,386) than the peer average (See Figure 4-8). Again, the same was true with respect to both bus (38 percent less) and demand response service (29 percent less). Petersburg data is significantly raising the peer average for both service area comparisons.

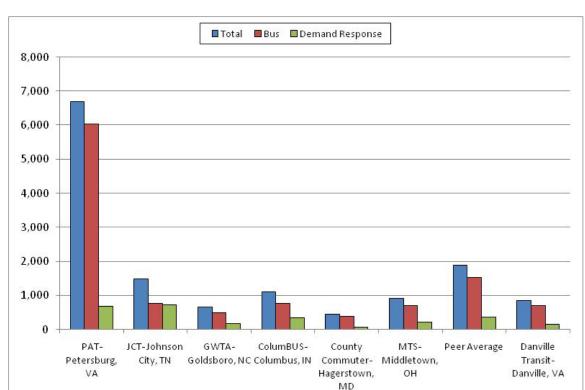
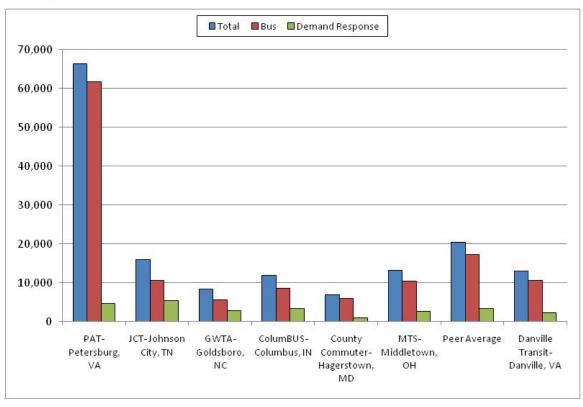


Figure 4-7: Peer Comparison – Revenue Hours per Square Mile of Service Area





DANVILLE VIRGINIA PEER ANALYSIS

#### 4.3 Ridership Service Productivity (Effectiveness)

Service Productivity or Effectiveness provides a method to evaluate if a transit agency's service is effectively transporting passengers, relative to the level of service provided. Three measures that reveal the service productivity of a transit system are passenger trips per capita, passenger trips per revenue hour, and passenger trips per revenue mile.

Passenger Trips per Capita: DT passenger trips per capita were about 48 percent less than the peer average (Figure 4-9). For bus service, DT passenger trips per capita were 48 percent lower than the peer average. For demand response service, DT passenger trips per capita were 39 percent lower than the peer average. It is important to note that Petersburg's data significantly brings up the peer average. Of the peers, GWTA (Goldsboro, NC) and MTS (Middletown, OH) were most similar to DT.

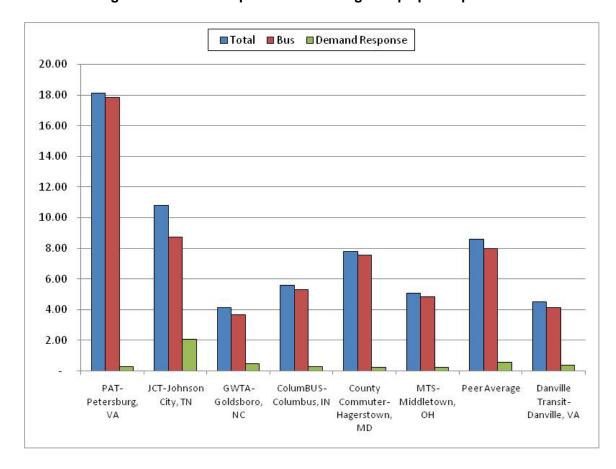


Figure 4-9: Peer Comparison – Passenger Trips per Capita

Passenger Trips per Revenue Hour: As shown in Figure 4-10, DT's overall passenger trips per revenue hour were slightly less than that of the peer average (10.3 to 11.3). DT bus service had 20 percent less passenger trips per revenue hour than the peer average (11.5 to 14.3). Demand response passenger trips per revenue hour for DT were 71 percent higher than the peer average (DT 4.8 compared to the peer average 2.8). This is due to DT's Reserve-a-Ride service that is included in the demand response figures.

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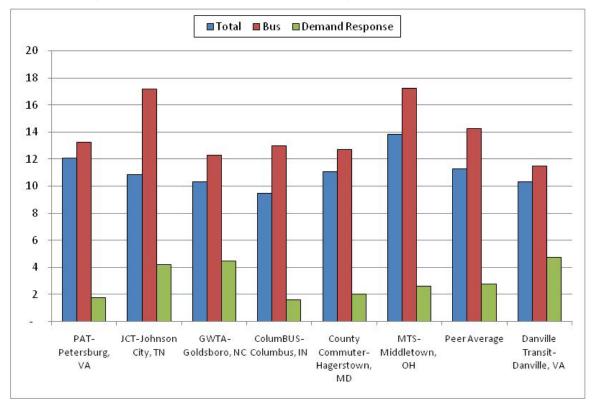


Figure 4-10: Peer Comparison – Passenger Trips per Revenue Hour

Passenger Trips per Revenue Mile: DT had 28 percent less passenger trips per revenue mile than the peer average (.67 to .93) (Figure 4-11). For bus service, DT generated about 32 percent less passenger trips per revenue mile than the peer average (.76 to 1.12) and demand response service generated 11 percent more passenger trips per revenue mile than the peer average (.30 to .27).

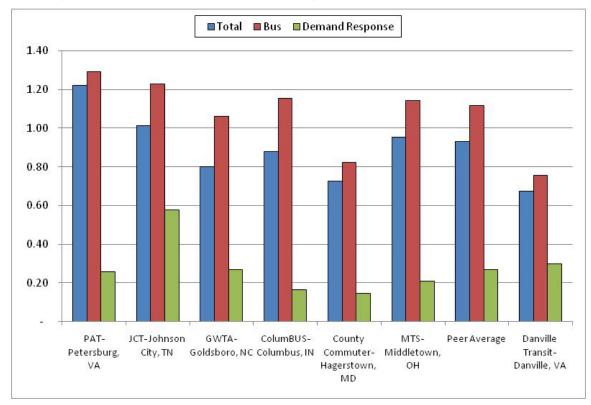


Figure 4-11: Peer Comparison – Passenger Trips per Revenue Mile

# 4.4 Cost Efficiency

• Operating Cost per Passenger Trip: As shown in Figure 4-12, DT's overall operating cost per passenger trip was essentially the same the peer average (\$4.49 to \$4.50). For bus, DT's operating cost per passenger trip was \$3.78 vs. \$3.79 for the peers. For demand response, DT's operating cost per passenger trip was 26 percent lower than the peer average (\$12.69 to \$17.16).

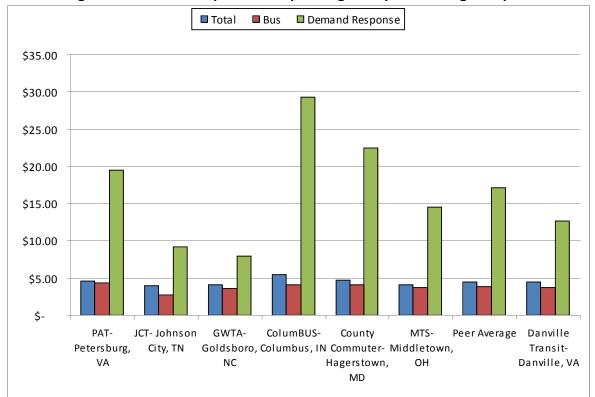


Figure 4-12: Peer Comparison – Operating Cost per Passenger Trip

- Operating Cost per Revenue Hour: DT's overall operating costs per revenue hour were 8 percent lower than the peer average (\$46.26 compared to \$50.31). For bus service, DT's cost per revenue hour was about 19 percent lower than the peer average (\$43.33 to \$53.34) and cost per revenue hour for demand response service was 52 percent higher than the peer average (\$60.37 to \$39.77). The higher demand response rate is due to Danville Transit's Reserve-a-Ride service (Figure 4-13).
- Operating Cost per Revenue Mile: DT's overall operating cost per revenue mile was approximately 28 percent lower than the peer average (\$3.02 to \$4.18). When comparing bus service and demand response service, DT's operating costs per revenue mile were about 32 percent lower than the peer average (\$2.86 to \$4.22) for fixed route service) and 3 percent lower than the peer average (\$3.79 to \$3.92) for demand response service (Figure 4-14).

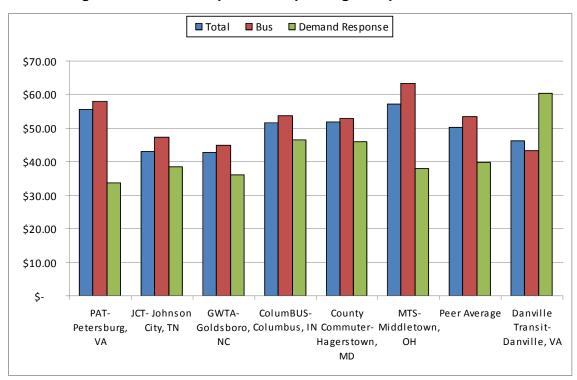
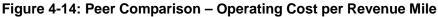
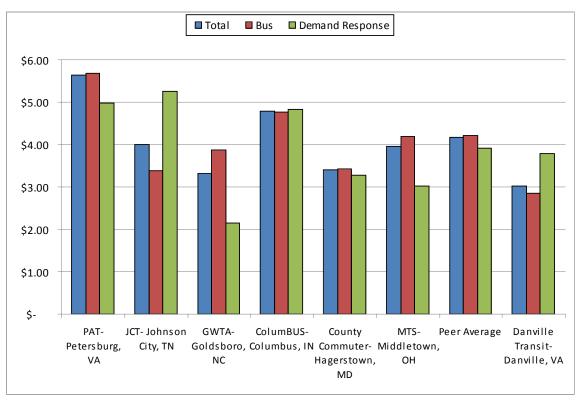


Figure 4-13: Peer Comparison - Operating Cost per Revenue Hour





DANVILLE VIRGINIA PEER ANALYSIS

#### 4.5 Revenue Vehicle Maintenance Performance

Two revenue vehicle maintenance performance measures were compared in this peer analysis: 1) the level of vehicle failures for major and minor mechanical reasons that prevent the revenue vehicles from completing their trips, or starting new trips and 2) the number of labors hours for inspection and maintenance of revenue vehicles.

Major mechanical failure are defined as failures that require assistance from someone other than the operator(s) to restore the vehicle to an operating condition, and they usually prevent the vehicle from continuing in revenue service. Major system failures include malfunctions in:

- Brakes;
- Doors:
- Engine cooling systems;
- Steering and front axle;
- Rear axle and suspension;
- Torque converters; or
- Similar major mechanical items.

Minor mechanical failures in general do not usually prevent the vehicle from continuing in revenue service. However, the minor system failures reported to the NTD in 2007 were those that prevented the revenue vehicle(s) from completing their trips, either due to internal policies of agencies or due to minor mechanical mishaps that prevented trip completion. Minor system failures are the same as interruptions due to other reasons include:

- Fareboxes:
- Wheelchair lifts;
- Air conditioning systems; or
- Similar minor mechanical items.

It is important to note that system failure figures should be viewed as gross indicators. Analysis of system failures as measures of maintenance performance should be undertaken with caution, requiring a more detailed examination of how system failures were defined as well as the individual agencies' policies for taking vehicles out of service. Additionally, this data is only collected for directly operated service. As a result, the analysis below only reflects bus operations.

- Revenue Vehicle Failures As shown on Figure 4-15, compared to the peer average, DT experienced more revenue service interruptions due to mechanical failures. DT's revenue vehicle mechanical failures per thousand vehicle miles were approximately twice the peer average (DT 0.47, Peer average 0.21).
- Labors hours for Inspection and Maintenance Figure 4-16 shows that DT labor hours for inspection and maintenance was about equal to that of the peer average (DT 8.55 hours per thousand vehicle miles, peer average 8.91 hours per thousand vehicle miles).

It is important to keep in mind that data was not available for all peer systems for these two characteristics. Thus, Danville's maintenance performance characteristics are being compared to a limited group of systems.

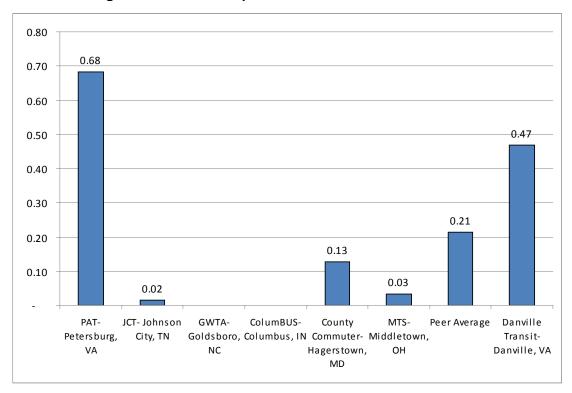
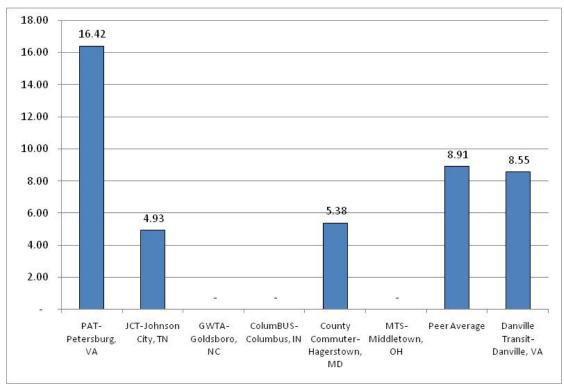


Figure 4-15: Peer Comparison – Revenue Vehicle Failures





DANVILLE VIRGINIA PEER ANALYSIS

# 5 FINANCIAL ANALYSIS

The sections below highlight the revenue sources used by DT and its peers to fund O&M and capital costs. It is important to note that the data utilized for the following analysis provides an indication of the range of funding sources used by DT and the peer transit systems for only FY 2007. While levels and sources of funding used for O&M tend to be relatively consistent from year to year, annual capital funding levels and sources can vary significantly – depending on the capital projects and grant sources occurring in a particular year.

# 5.1 Funding Sources Used for O&M

Figure 5-1 illustrates the key revenue sources used by DT to fund its O&M costs. As shown in the figure, DT relied primarily on Federal funds, about 30 percent, followed closely by Local funds (24 percent), Fares (22 percent) and then State funds (19 percent). Only 4 percent of Danville Transit's funding came from other sources.

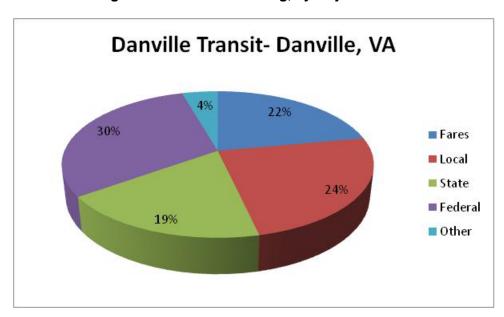


Figure 5-1: DT O&M Funding, by Major Source

Figures 5-2 and 5-3 provide an overview of the total level of O&M funding used by DT and its peers. The figures also illustrate the relative reliance of each agency on the following sources:

- Fares and other directly generated funds
- Federal sources
- State sources
- Local sources
- Dedicated transit funding sources

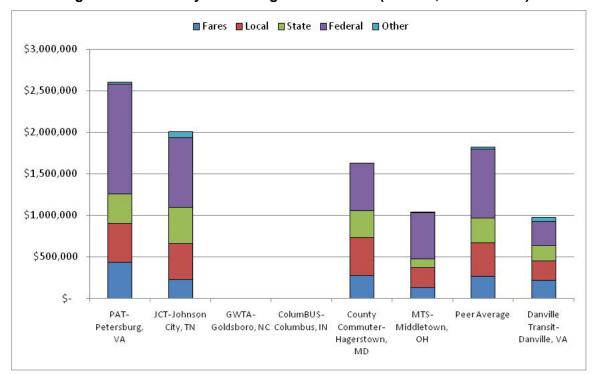
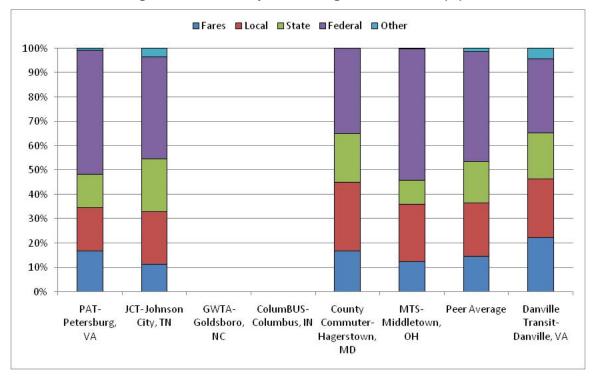


Figure 5-2: Summary of Funding Used for O&M (in 000's, 2007 Dollars)





As shown in Figures 5-2 and 5-3, GWTA and ColumBUS information was not available for O&M Funding sources. The total annual O&M cost of the agencies ranges from approximately \$974,167 to

\$2.7 million. With a total annual O&M cost of \$974,167 (in 2007), Danville Transit was significantly below the peer average of \$1.8 million.

## **Farebox Revenues for O&M**

Transit agencies collect fares for the services they provide. The extent to which fares cover O&M costs is referred to as the farebox recovery rate. Unfortunately, ColumBUS did not have farebox revenue information available. As shown in Figures 5-4 and 5-5, the farebox recovery rate of DT and its peers ranged from 10 percent to 23 percent for bus service and 5 percent to 35 percent for paratransit services. The peer average farebox recovery for bus was 15 percent and 14 percent for paratransit. With its 23 percent bus farebox recovery rate and 19 percent paratransit farebox recovery rate, Danville Transit's farebox recovery rate was well above the peer averages.

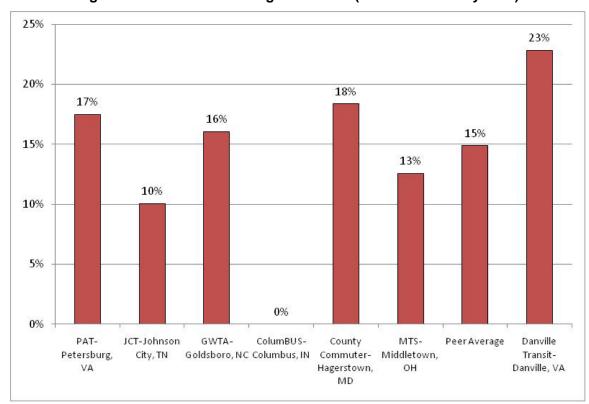


Figure 5-4: Bus O&M Funding from Fares (Farebox Recovery Rate)

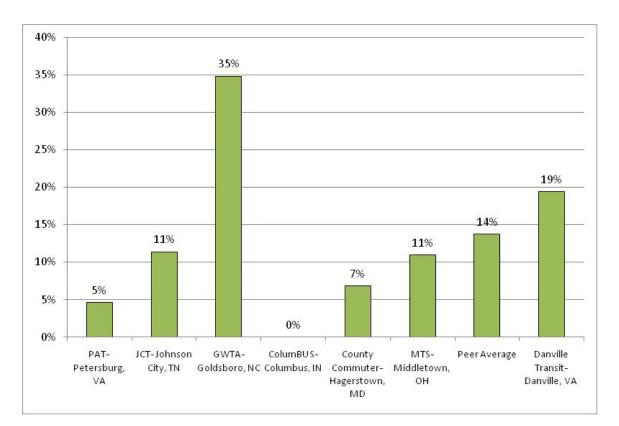


Figure 5-5: Demand Response O&M Funding from Fares (Farebox Recovery Rate)

# Federal Sources for O&M

As shown in Figure 5-6, the reliance on federal O&M sources demonstrated by DT and its peers ranged from 30 percent to 54 percent, with an average of 45% reliance on federal funds. With its 30 percent reliance on federal sources, DT was below the peer average.

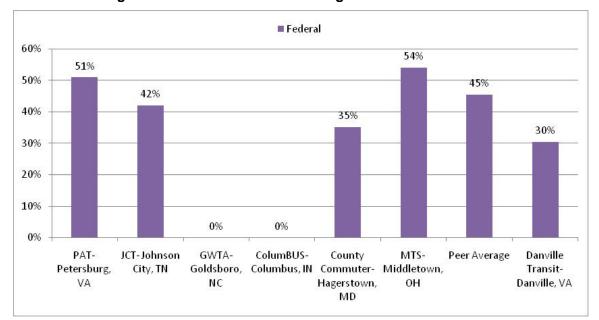


Figure 5-6: Percent of O&M Funding from Federal Sources

## State Sources for O&M

States vary with respect to funding programs for transit. As shown in Figure 5-7, the reliance on state O&M funding sources demonstrated by DT and its peers ranged from 10 percent to 22 percent. The average reliance on state sources was 17 percent.

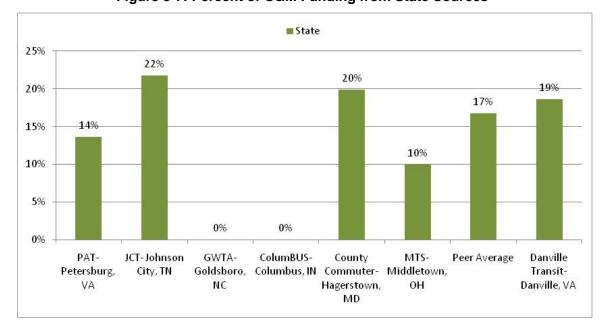


Figure 5-7: Percent of O&M Funding from State Sources

DANVILLE VIRGINIA PEER ANALYSIS

### **Local Sources for O&M**

Local agencies that receive transit service generally provide local funding to pay a portion of the transit O&M costs not paid through fares and from federal and state grants. These funds may be in the form of local funding and/or in the form of local funding that is dedicated at its source for transit use. In the first case, local funding from various sources is provided to the transit agency by the local jurisdiction. In the second case, local funding specifically designated for transit use is either received directly by the transit agency or received by the local jurisdictions and contributed to the transit agency in payment for service. In the former, local funding is generally derived from local sales, property, and/or gas taxes.

As shown in Figure 5-8, there was not much variation among DT and its peers with respect to reliance on local O&M sources. Reliance on local sources ranged from 18 percent to 28 percent, with an average reliance on local sources of 22 percent. With its 24 percent reliance on local funding, DT was slightly above the peer average.

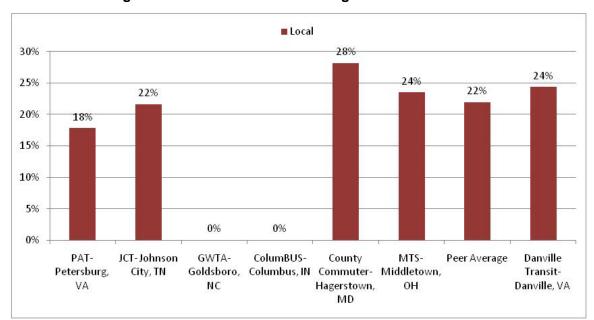


Figure 5-8: Percent of O&M Funding from Local Sources

# 5.2 Funding Sources Used for Capital

While funding levels and sources used for O&M remain relatively consistent from year to year, capital expenditure levels and sources can vary significantly from year to year, depending on the particular projects underway and the grants available. Thus, the information on capital funding levels and sources described below reflects a snapshot for 2007, the most recent year for which data is available from the NTD. In 2007, Danville Transit was receiving capital funding grants for its downtown HUB.

Figure 5-9 illustrates the key revenue sources used by DT to fund its capital costs in 2007. As shown in the figure, DT relied primarily on federal capital grant funds, with 80 percent of its capital revenues derived from this source. Local funds provided 12 percent and state funds provided 8 percent of capital funding.

DANVILLE VIRGINIA PEER ANALYSIS

Figures 5-10 and 5-11 provide an overview of the total level of capital funding used by Danville Transit and its peers for the same year. The figures also illustrate the relative reliance of each agency on the following sources:

- Federal sources
- State sources
- Local sources
- Dedicated transit funding sources

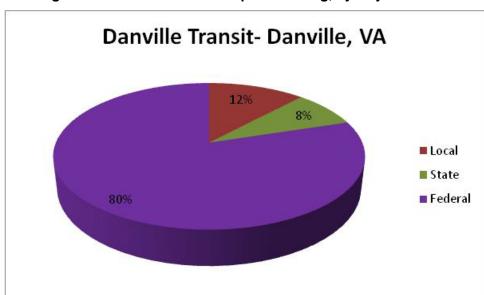


Figure 5-9: Danville Transit Capital Funding, by Major Source

As shown in Figures 5-10 and 5-11, the total annual capital cost expended by the agencies for the NTD year reported ranged from just under \$69 thousand to \$2.6 million. With a total annual capital expenditure of approximately \$967,000 (in 2007), DT was slightly above the peer average of \$726,598.

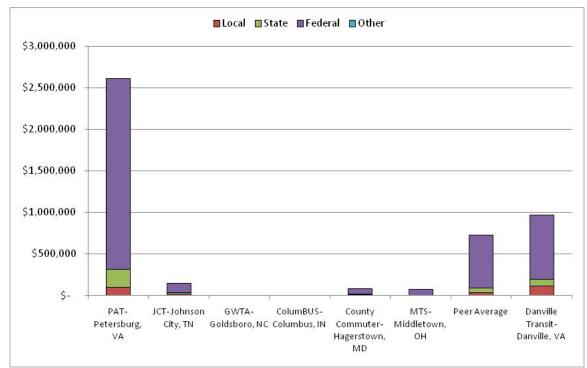
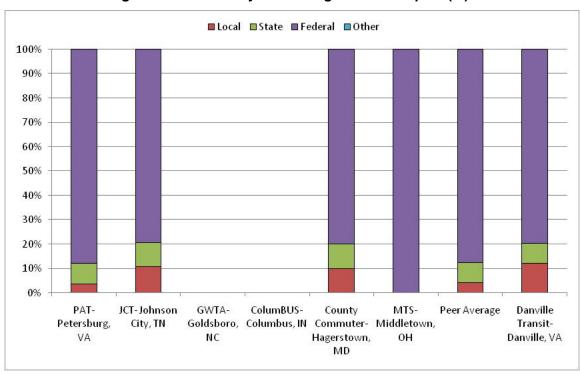


Figure 5-10: Summary of Funding Used for Capital (in 2003 Dollars, 000)





DANVILLE VIRGINIA PEER ANALYSIS

# **Federal Sources for Capital**

Transit agencies receive grant funds from various federal programs, notably the Federal Transit Administration's (FTA) formula and discretionary grant programs. As shown in Figure 5-12, the reliance on federal capital sources demonstrated by DT and its peers ranged from 79 percent to100 percent, with a peer average of 88 percent. With its 80 percent reliance on federal sources DT was slightly lower than the peer average. However, the peer average is influenced by Middleton's report of 100% federal funding for capital expenses. Unfortunately data for GWTA and ColumBUS were not available and are therefore shown as 0%/ \$0 on the following charts.

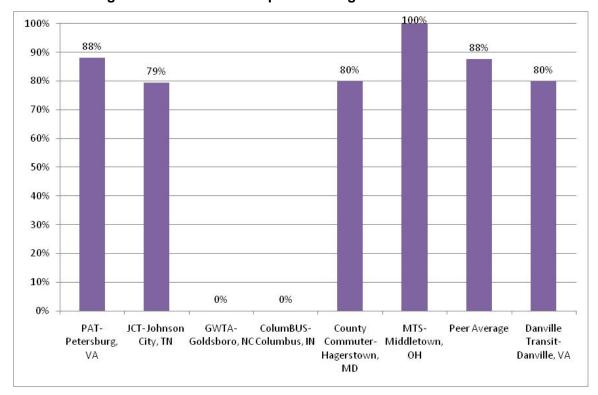


Figure 5-12: Percent of Capital Funding from Federal Sources

#### **State Sources for Capital**

The different states vary with respect to the existence of special state grant programs for transit. As with O&M, some states provide capital funding for transit. As shown in Figure 5-13, the reliance on state capital sources demonstrated by DT's peers ranged from 8 percent to 10 percent, with an average reliance on state sources of 8 percent. DT received 8 percent capital funding from state sources.

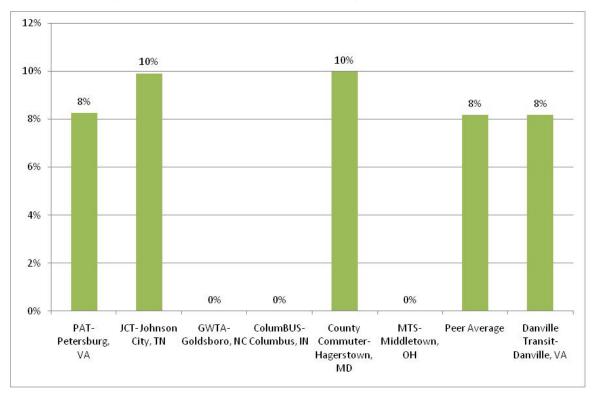


Figure 5-13: Percent of Capital Funding from State Sources

#### **Local Sources for Capital**

As with O&M, local agencies that receive transit service may provide local funding to pay a portion of the transit capital costs not paid through federal and state grants. As shown in Figure 5-13, there is a slight variation among DT and its peers with respect to reliance on capital funding from local jurisdictions. Reliance on local sources ranged from 0 percent to 12 percent, with an average reliance on local sources of 4 percent.

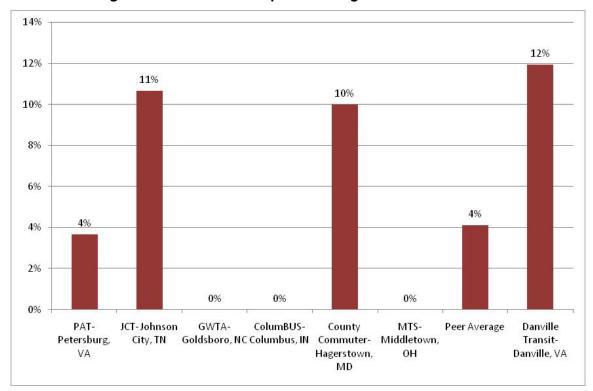


Figure 5-14: Percent of Capital Funding from Local Sources

#### **6 KEY FINDINGS**

This *Peer Analysis* has compared Danville Virginia Transit (DT) to six peer transit systems with respect to operational and financial characteristics and performance. The Federal Transit Administration's (FTA) National Transit Database (NTD) was the primary source of data for four of the six peer systems, with the most recently available data (2007) used in the analysis. In addition to the NTD data, additional information was derived from the individual websites of the peer agencies and through phone calls to key individuals within the transit organizations.

The transit systems selected as peers to DT are:

- Petersburg Area Transit (PAT), Petersburg, VA
- Johnson City Transit (JCT), Johnson City, TN
- Goldsboro-Wayne Transit Authority (GWTA), Goldsboro, NC
- ColumBUS, Columbus, IN
- County Commuter, Hagerstown, MD
- Middletown Transit System (MTS), Middletown, OH

In general, Danville Transit's ridership, service and financial characteristics did not differ significantly from the peer systems. Key findings were as follows:

- Vehicle Utilization: Danville's fleet size and peak utilization was similar to the peer average. DT did run fewer revenue-hours per peak vehicle than the peer average. However, some of the peer systems run later hours of service than DT, thus driving up the peer system's average vehicle utilization per peak vehicle.
- Service Supplied: DT operates fewer revenue-hours and revenue-miles per capita than the peer average. Once again, this is due in part to some systems running later hours of service than DT. DT also operates fewer revenue-hour and revenue-miles per service area square mile than the peer average However, the Petersburg, VA data significantly raised the peer average. DT is much closer to the peer average when not including Petersburg in the calculations.
- Ridership Service Productivity: DT's service productivity for fixed route service was less
  than the peer systems when compared on a revenue-hour, revenue-mile and per capita
  basis. However DT's service productivity measures for demand response service were
  higher due to the inclusion of Reserve-a-Ride service in DT's demand response figures.
- **Cost Efficiency:** DT's cost efficiency characteristics were very similar to the peer systems on a passenger trip basis. DT's fixed route service was more cost effective than the peer system average on a revenue-hour and revenue-mile basis.
- **Vehicle Maintenance Performance:** DT did have a higher rate of revenue vehicle failures than the peer average. However, data was available for only four of the six peer systems. Thus, comparison data was limited.
- Farebox Revenues: DT did much better than its peer systems with regards to farebox recovery. Fixed route service for DT had a farebox recovery rate of 23% vs. 15% for the peer systems. Demand response service for DT had a farebox recovery of 19% vs. 14% for the peer systems.

DANVILLE VIRGINIA PEER ANALYSIS

- **Source of O&M Funds:** DT had similar characteristics to the peer systems with regards to the percent of funding that comes from state and local sources. The peer systems, however, had a larger portion of operations funded from federal sources.
- **Source of Capital Funds:** DT's funding sources for capital funds was also similar to the peer systems.

To conclude, this analysis has determined that Danville Transit's ridership, service and financial characteristics appear to be within the range of characteristics experienced by its peer systems.

DANVILLE VIRGINIA PEER ANALYSIS

# APPENDIX C DANVILLE TRANSIT TDP DANVILLE TRANSIT RIDER SURVEY RESULTS

# **Table of Contents**

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2.0	Survey Response Rates	2
3.0	Responses to Survey Questions	4
4.0	Summary of Findings	.17
APPF	FNDIX – Fixed Route and Reserve-a-Ride Transit Rider Surveys	

## 1.0 Overview of Transit Rider Survey Process

A transit rider survey has been completed for Danville Transit (DT) for use in the agency's 2009 Transit Development Plan (TDP). Specifically, results from this rider survey are being used to determine rider characteristics, trip-making characteristics and perceptions regarding quality of transit services and future needs. This Technical Memorandum presents the results of the survey effort. Individual transit rider survey forms were prepared for DT's fixed route service and Reserve-a-Ride service. Fixed-route surveys were conducted on February 5 and 6, 2009. Reserve-a-Ride patrons were surveyed over a 5-day period, beginning February 9 and ending February 13, 2009. An extra operator rotated on fixed routes and distributed surveys to passengers, assisting passengers with responses when necessary. For Reserve-a-Ride service, drivers asked riders to pick up and complete a survey questionnaire.

Survey questions were developed and reviewed with DT's staff and the City's Transportation Advisory Committee. Each survey instrument asked patrons to respond to several questions pertaining to:

- Their socioeconomic status (labeled "About You" on the survey form);
- General characteristics of the trip they were making at the time of the survey such as trip purpose, origin and destination (labeled as "About Your Trip" on the survey form);
- Perceptions regarding Danville Transit's existing service (labeled as "Rate Danville Transit's Service" on the survey form); and
- Perceptions regarding needed improvements (labeled as "Identify Future Service Improvement Needs" on the survey form).

The fixed route and Reserve-a-Ride survey forms are provided at the end of this Tech Memo.

DANVILLE VIRGINIA TRANSIT RIDER SURVEY

## 2.0 Survey Response Rates

As previously noted, fixed-route surveys were conducted on February 5 and 6, 2009. Reserve-a-Ride patrons were surveyed over a 5-day period, beginning February 9 and ending February 13, 2009. In all, 236 Danville Transit patrons were surveyed of which 190 were fixed-route passengers and 46 were patrons of the Reserve-a-Ride service. Weekday fixed route ridership averages approximately 800 riders per day and Reserve-a-Ride ridership averages about 60 riders per day. With the fixed route surveys, response rates were noted by route and by time of day. Figure 2-1 shows survey response percentages by fixed route. Routes 1 and 5 represent 24% and 23% or together, roughly half of all fixed route responses.

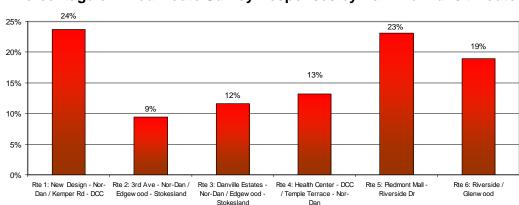


Figure 2-1
Percentage of Fixed-Route Survey Responses by Danville Transit Route

Figure 2-2 summarizes the fixed route responses by time-of-day. The red bars relate to the left chart axis and shows the number of responses by time of day. The Blue line on the graph displays the cumulative time-of-day percentage in accordance with right axis. Half of all responses (i.e., 90) were recorded in the morning between 6:00 AM and 12:00 PM.

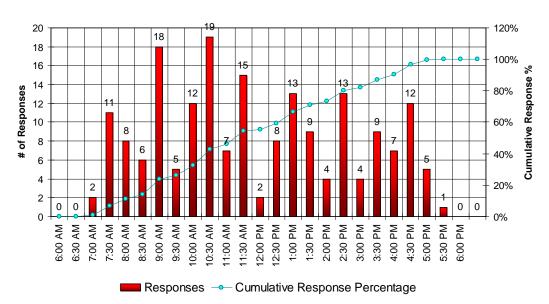


Figure 2-2
Fixed Route Survey Responses by Time-of-Day

DANVILLE VIRGINIA TRANSIT RIDER SURVEY

## 3.0 Responses to Survey Questions

Initial questions for both the fixed route and Reserve-a-Ride surveys centered upon demographic characteristics of the rider (e.g., their gender, age, income, etc.).

#### **Gender**

The first survey question asked patrons to report their gender. Responses from the survey of Danville Transit's fixed routes (Figure 3-1A) indicate 66% of the riders are female and 34% male. Reserve-a-ride responses were similar with 65% of responding patrons indicating they were female and another 35% being male (Figure 3-1B).

#### Survey Question 1: I am male or female?

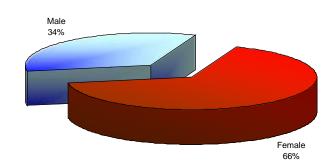
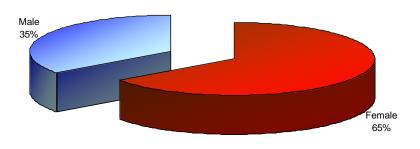


Figure 3-1A – Fixed Route

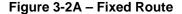




#### <u>Age</u>

Figures 3-2A and 3-2B illustrate responses to the survey's age question (i.e., the 2<sup>nd</sup> question on each survey form). In general, fixed route riders (Figure 3-2A) tend to be younger than Reserve-a-Ride patrons (Figure 3-2B). Some 42% of fixed route responses were under 40, while for Reserve-a-Ride, 34% were under 40. For patrons over 40 years of age, fixed route and Reserve-a-Ride response percentages were 58% and 66% respectively.

#### Survey Question 2: My age is?



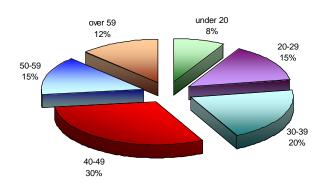
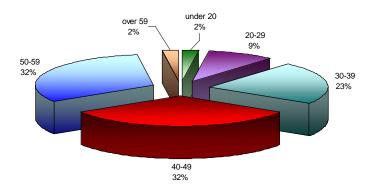


Figure 3-2B - Reserve-a-Ride



#### **Ethnicity**

The third survey question asked patrons about their ethnicity. Both fixed route (Figure 3-3A) and Reserve-a-Ride responses (Figure 3-3B) were predominantly African-Americans - 74% and 84% respectively. Some 22% of the fixed route respondents reported being Caucasian compared with 7% of the Reserve-a-Ride respondents.

#### Survey Question 3: My ethnicity is predominantly?



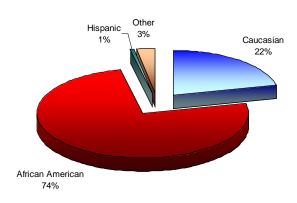
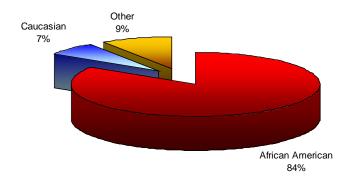


Figure 3-3B - Reserve-a-Ride



SURVEY

#### **Education**

Question 4 of the survey asked about the rider's level of education. 36% of fixed route riders (Figure 3-4A) reported having some college experience or obtaining a college degree, 38% reported graduating from high school or obtaining a high school equivalency and another 26% indicated they did not graduate from high school. Reserve-a-Ride responses (Figure 3-4B) indicate a higher percentage of riders with some college experience or a college degree (50% for Reserve-a-Ride vs. 35% for fixed route).

#### Survey Question 4: I have completed?

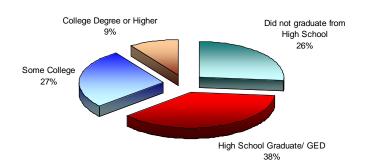
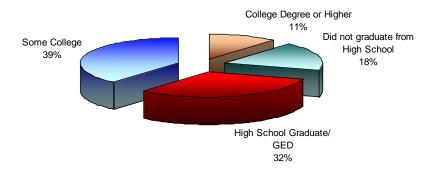


Figure 3-4A – Fixed Route





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DANVILLE VIRGINIA TRANSIT RIDER

SURVEY

#### **Annual Household Income**

Patrons were asked about their annual household income in the fifth survey question. Some 79% of Danville Transit's fixed route riders indicated household incomes under \$20,000 per year (Figure 3-5A). Reserve-a-Ride responses indicating annual household incomes under \$20,000 were roughly 66% of all responses (Figure 3-5B).

#### Survey Question 5: My home's total annual income is?

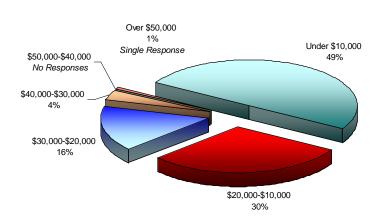
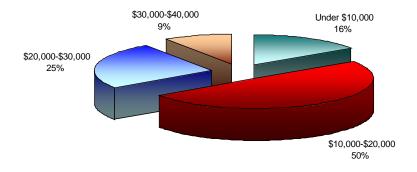


Figure 3-5A - Fixed Route





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DANVILLE VIRGINIA TRANSIT RIDER

#### Frequency of Use

Figures 3-6A and 3-6B show survey responses when patrons were asked how often they use Danville Transit. For fixed routes, 35% of the respondents indicated that they ride 2 to 3 days a week and another 51% ride 4 or more days. For Reserve-a-Ride service, 34% of respondents indicated that they ride 2 to 3 days a week and another 60% ride 4 or more days a week. These responses indicate that Danville Transit has a stable base of regular riders.

Fixed Route Survey Question 6: How often do you ride Danville Transit? Reserve-a-Ride Survey Question 7: How often do you ride Reserve-a-Ride?

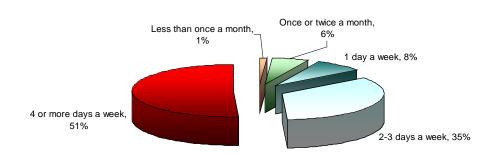
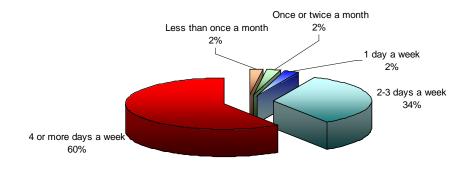


Figure 3-6A - Fixed Route





RIDER

SURVEY

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DANVILLE VIRGINIA TRANSIT

#### **Use of Other Transit Services**

Fixed route riders were asked how often they use Reserve-a-Ride service, and Reserve-a-Ride riders were asked how often they use fixed route service. As noted below in Figure 3-7A, over ½ of fixed route riders have never used Reserve-a-Ride service. However, 87% of Reserve-a-Ride riders indicated they have at least ridden DT's fixed route service, with 60% indicating they ride more than twice a month. Only 13% indicated they had never used fixed route service (Figure 3-7B).

Fixed Route Survey Question 7: How often do you ride Reserve-a-Ride?

Reserve-a-Ride Survey Question 8: How often do you ride Regular Fixed Route

Service?

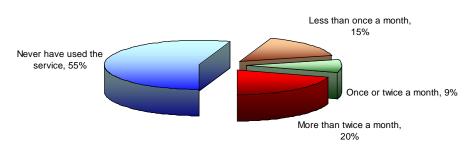
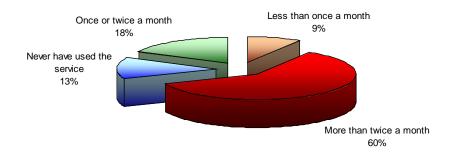


Figure 3-6A - Fixed Route





#### **Fixed Route Trip Origins, Mode of Access and Destinations**

Figures 3-8A through 3-8C summarize respectively the trip origins, modes-of-access and trip destinations from the fixed route survey responses. 66% of fixed route riders indicated their trip began at home (Figure 10A). Some 98% of fixed route patrons access Danville Transit by walking to buses (Figure 10B). Home, work and shopping represent 74% of the reported trip destinations (Figure 10C).

#### Fixed Route Survey Questions 8, 10 and 11:

8. Where did your current trip begin? 10. How did you get to the bus? 11. Where are you going now?

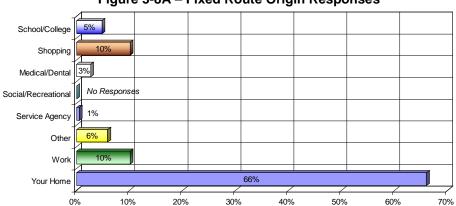
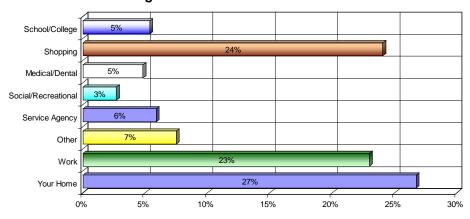


Figure 3-8A - Fixed Route Origin Responses

Figure 3-8B - Fixed Route Origin Responses



Figure 3-8C - Fixed Route Destinations



DANVILLE VIRGINIA TRANSIT RIDER SURVEY

Figure 3-8D provides a cross tabulation that relates a specific origin response to a specific destination. Taking the reported Medical/Dental origin category for example, the tabulation suggests that of the people traveling *from* a Medical/Dental location, 20% then went *to* a shopping location, 20% went *to* another Medical/Dental location and 60% went home. It merits some mention that there are questionable responses. For example, 20% of the respondents indicated that their trips originated at home (i.e., Your Home Origins) and also that they were going home.

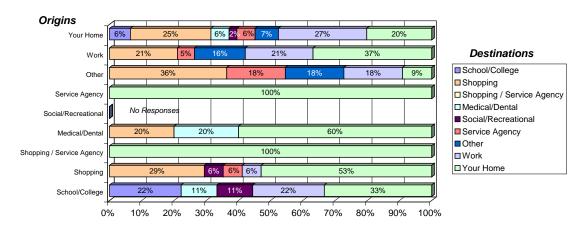


Figure 3-8D – Fixed Route Origins and Destinations

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#### Reserve-a-Ride Trip Origins, Mode of Access and Destinations

Figures 3-9A and 3-9B summarize origin and destination trips purposes for Reserve-a-Ride responses. Results suggest a strong home-work relationship. Some 89% of the stated Reserve-a-Ride origins were either Home (41%) or work (48%). For destinations, home and work responses amount to 91% of all responses. Thus, Home-Work trips are much more predominant with Reserve-a-Ride than it is with fixed route service.

#### Reserve-a-Ride Survey Questions 9 and 11:

- 9. Where did your current trip begin?
- 11. Where are you going now?

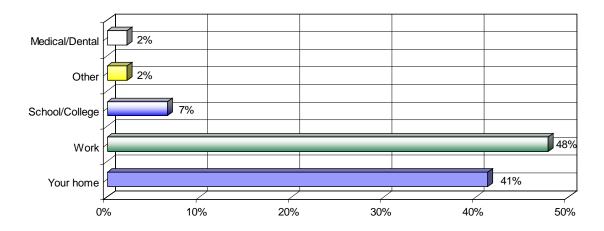
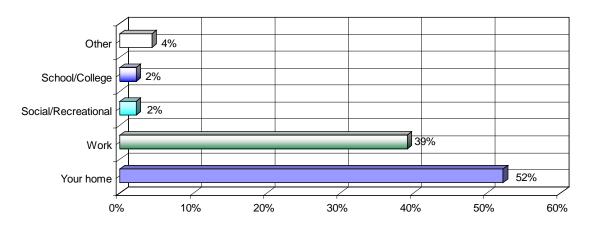


Figure 3-9A – Reserve-a-Ride Origins





DANVILLE VIRGINIA TRANSIT RIDER

SURVEY

#### **Reason for Riding Transit**

Question 13 for both the Reserve-a-Ride and fixed route surveys asked patrons why they were using Danville Transit. The predominant response for both fixed route service (Figure 3-10A) and Reserve-a-Ride (Figure 3-10B) was "I don't have a car", respectively 84% and 74%. No responses were recorded for the "Save Time" category in either survey.

#### Survey Question 13: Why did you ride the bus today?

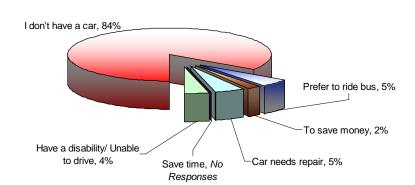
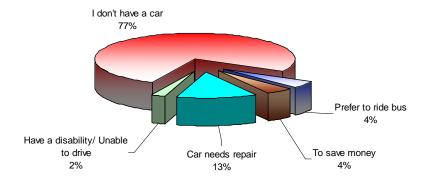


Figure 3-10A - Fixed Route





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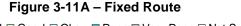
DANVILLE VIRGINIA TRANSIT RIDER

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#### **Opinions of Danville Transit Services**

Survey questions 14A through 14J on both surveys asked patrons to rate several qualitative aspects of Danville Transit. Figure 3-11A reflects the responses of fixed route patrons and Figure 3-11B reflects the responses of Reserve-a-Ride patrons. Rating categories are shown at the top of each chart and range from "Very Good" to "Not Sure." Charts display the actual number of responses and the percentage breakdown of the responses to each question. For example, the chart in Figure 3-11A shows that 101 fixed route respondents rated the "Frequency of bus service" a being "Very good." This is roughly 54% of all responses related to this particular category (i.e., service frequency). 86% of fixed route riders rated the overall service as being either "Very Good" (56%) or "Good" (30%). Figure 3-11B shows that 85% of Reserve-a-Ride patrons rated overall service as being either "Very Good" (63%) or "Good" (22%). There were no "Very Poor" responses in the Reserve-a-Ride Survey. In general, fixed route service received a high number of favorable response being for hours of service (68% rated hours of service very good or good). Reserve-a-Ride also received a high number of favorable responses (very good or good) in all categories, except bus on-time performance.

#### Survey Questions 14A - 14J



■ Very Good □ Good □ Okay ■ Poor □ Very Poor □ Not Sure

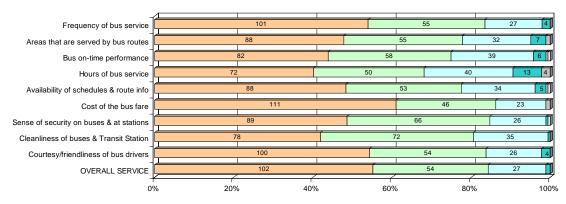
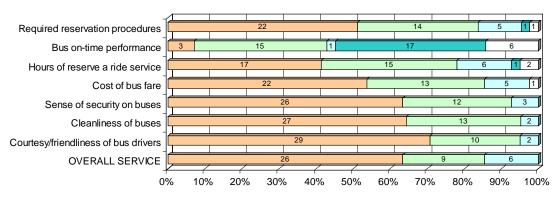


Figure 3-11B - Reserve-a-Ride

■ Very Good □ Good □ Okay ■ Poor □ Not Sure



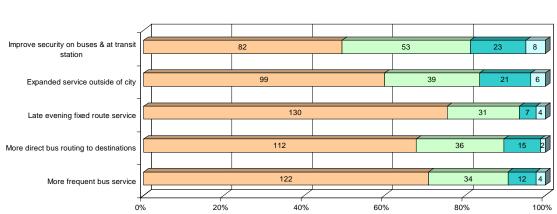
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#### **Service Improvement Needs**

Questions 15A through 15E in both surveys asked respondents to rate the importance of potential improvements to the Danville Transit system. About 80% of fixed route survey respondents rated all categories as very important or somewhat important, with the highest identified need being late evening fixed route service. About 70% of Reserve-a-Ride respondents cited expanded service outside of the city and less advanced time to schedule trips as very important or somewhat important.

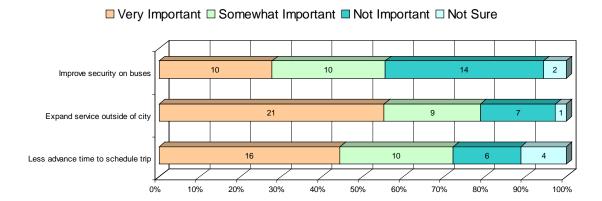
#### Survey Questions 15A - 15E

Figure 3-12A- Fixed Route



□ Very Important □ Somewhat Important □ Not Important □ Not Sure

Figure 3-12B - Reserve-a-Ride



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DANVILLE VIRGINIA TRANSIT RIDER SURVEY

# 4.0 Summary of Findings

Using survey results presented in the prior section, the typical Danville Transit rider (for both fixed route and Reserve-a-Ride) is as follows:

- Female
- Over 30-vears old
- An African American
- At least a High School Graduate
- Has a household income under \$20,000
- Uses Danville Transit service at least 2-3 days a week
- Uses transit for work or shopping trips
- Accesses bus service by walking
- Rides transit because they don't have a car

There are some slight differences in rider profiles between fixed route and Reserve-a-Ride riders. The Reserve-a-Ride riders are more likely to have some college education and are predominantly using the service for home-work trips and less for shopping trips than fixed route riders. Both fixed route and Reserve-a-Ride service received favorable ratings (very good or good) for most service categories such as areas served and cost of the bus fare. The lowest fixed route rating was for hours of bus service (68% rated hours of fixed route bus service as very good or good with the remaining 32% rating it as The lowest Reserve-a-Ride rating was for on-time okay, poor or very poor). performance (42% rated on-time performance as very good or good, with 58% rating it as okay, poor or very poor or not sure).

When asked about potential service improvements, fixed route respondents rated all five potential categories as either very important or somewhat important (security, expanded service outside of city, late evening service, more direct bus routing and more frequent service). Late evening fixed route service received slightly more requests than the other categories. Reserve-a-Ride respondents indicated expanded service outside of the City and less advance time to schedule trip as very important or somewhat important.

Both survey forms had space for riders to provide written comments. Twenty eight (28) people provided written comments on the fixed route form. Six riders commented on the need for Sunday service and seven riders commented on the need for later hours of fixed route service. Other comments included: the need for more frequent service, more buses, bigger buses, and a request to keep the bus station open until all buses stop running. Sixteen (16) people provided written comments on the Reserve-a-Ride form. Three people commented on the need for expanded hours to the Eastside, 2 people commented on more flexibility regarding the scheduling of trips, and 2 people commented on bus on-time performance.

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DANVILLE VIRGINIA TRANSIT RIDER

# APPENDIX FIXED ROUTE AND RESERVE-A-RIDE TRANASIT RIDER SURVEYS

# **Fixed Route Survey Questionnaire**

Date Route Approx. Time	
-------------------------	--

Dear Rider: Danville Transit is presently evaluating existing and future transit service needs. Please take a minute and fill out this survey regarding your opinions of Danville Transit. Thank you for your help.

	About You		About Your Trip
1. 2.	I am:	8.	Where did your current trip begin?  Your Home
i.	My ethnic background is primarily:  Caucasian	9.	Where was that located? Address, Major Intersection or Nearby Landmark (shopping center name, hospital, school name, etc.
۱.	I have completed:  Did not graduate from High School High School graduate/GED Some College College degree or higher	10.	How did you get to the bus?    Walk
	My home's total annual income is:  Under \$10,000	11.	Where are you going now?  Your Home Medical/Dental School/College Service Agency Shopping
	Less than once a month     Once or twice a month     1 day a week     2-3 days a week     4 or more days a week	12.	☐ Other
	How often do you ride Danville's Reserve-a-Ride service?  Never have used the service Less than once a month Once or twice a month More than twice a month	13.	Why did you ride the bus today?  I don't have a car Prefer to ride bus Have a disability/ unable to drive
	Rate Danville	Transit	's Service
4.	Please rate the following characteristics of Danville Transit's service:	Very Good	Good Okay Poor Poor Sure
	a. Frequency of bus service b. Areas that are served by bus routes c. Bus on-time performance d. Hours of bus service e. Availability of schedules & route information f. Cost of the bus fare g. Sense of security on buses & at stations h. Cleanliness of buses & transit station i. Courtesy/friendliness of bus drivers j. OVERALL SERVICE		
	Identify Future Serv	ice Imp	rovement Needs
15.	What service improvements would you like to see over the next several years?	In	Very Somewhat Not Not uportant Important Important Sure
	a. More frequent bus service b. More direct bus routing to destinations c. Late evening fixed route service d. Expand service outside of City e. Improve security on buses & at transit station		

# **Reserve-A-Ride Survey Questionnaire**

Date	Approx. Time	
------	--------------	--

**Dear Rider:** Danville Transit is presently evaluating existing and future transit service needs. Please take a minute and fill out this survey regarding your opinions of Danville's Reserve a Ride service. **Thank you for your help.** 

						-		
	About You			1	About Y	our Trip		
1. 2. 3.	Male   Female	9.	□ Y □ W □ Sc □ Sl □ O  Wher Addre		lege   t located Intersect	Medica Social/I Service	l/Dental Recreation Agency arby Land	mark
4.	I have completed:  □ Did not graduate from High School  □ High School graduate/GED  □ Some College  □ College degree or higher	11.	(shopping center name, hospital, school of the content of the cont			l/Dental	ntal ational	
5,	My home's total annual income is:         □ Under \$10,000       □ \$30,000-\$40,000         □ \$10,000-\$20,000       □ \$40,000-\$50,000         □ \$20,000-\$30,000       □ Over \$50,000	12.						
7.	How often do you ride Reserve-a-Ride?  Less than once a month Once or twice a month 1 day a week 2-3 days a week 4 or more days a week	13.	(shopp		r name, i	hospital, s	arby Lands school name	ne, etc)
8.	How often do you ride Danville's regular fixed route service?  Never have used the service  Less than once a month  Once or twice a month  More than twice a month			refer to ric		□ Ha	save time we a disabi able to dri	ility/
	Rate Danville Re	serve-a	-Ride S	Service				
14.	Please rate the following characteristics of Reserve-a-Ride service:	Very Good	Good	Okay	<u>Poor</u>	Very <u>Poor</u>	Not Sure	
	<ul> <li>a. Required reservation procedures</li> <li>b. Bus on-time performance</li> <li>c. Hours of Reserve-a-Ride service</li> <li>d. Cost of the bus fare</li> <li>e. Sense of security on buses</li> <li>f. Cleanliness of buses</li> <li>g. Courtesy/friendliness of bus drivers</li> <li>h. OVERALL SERVICE</li> </ul>							
	Identify Future Serv	ice Imp	rovem	ent Need	ls			
15.	What service improvements would you like to see to Reserve a Ride over the next several years?	Ir	Very nportan		newhat ortant	Not Importa	Not ant Sur	
	Less advance time required to schedule trip     Expand service outside of City     Improve security on buses							

# APPENDIX D DANVILLE TRANSIT TDP JANUARY 30, 2009 TRANSPOTATION ADVISORY COMMITTEE AND STAKEHOLDER MEETING NOTES

#### Danville, VA TDP Stakeholder's Meeting January 30, 2009 at Danville Airport 12:00 noon

#### **Participants:**

Name	Organization	Phone #	E-Mail
Jim Baker	Connetics	678-461-0969	jbaker@conneticsgroup.com
Judy P. Keesee	TAC Member	434-793-9355	Keseej@earthlink.net
Ralph Price	TAC Member	434-701-5291	Ralph.price@vec.virginia.com
Paula Booth	Ind. Living	434-797-2530	paulaboothpile@yahoo.com
Clarence	Ind. Living	434-707-2530	Clarencerdickerson@yahoo.com
Dickenson			
Janette King	Ind. Living	434-797-2530	jkpile@yahoo.com
Greg Sides	Pitts County	434-432-7974	Greg.sides@pittgov.org
Stacy Ganema	Social Services	434-700-5161	Sdj590@piedmont.dss.state.va.us
Kim Adkins	West Piedmont	276-656-6190	kim@wpwin.org
Wade Key	TAC Member	434-702-0657	wek@gamewood.net
Shirley Crosby	TAC Member	434-702-0657	Crosby425@earthlink.net
Larry Campbell	TAC Member	434-793-9493	Campbell862@add.com
Christy Oakes	Adecco	434-791-2933	Christy.oakes@adeccona.com
Lisa Bivens	City of Danville	434-799-5110	bivenlg@ci.danville.va.us
Mark Adelman	City of Danville	434-799-5110	Adelmmd@ci.danville.va.us

#### **Meeting Notes**

The Danville Stakeholder meeting was held as part of Danville's quarterly Transportation Advisory Committee (TAC) meeting. The TDP was discussed first. After this topic, the TAC conducted its other business. A brief presentation was made by Connetics staff that covered the following topics:

- Purpose of the TDP
- TDP Requirements and Content
- Danville TDP Tasks Underway
- Existing Danville Ridership, Service Fleet Age and Financial Characteristics

There was then discussion regarding transit service needs in Danville. Topics raised were as follows:

- Participants expressed gratitude for the reserve-a-ride service that is provided by the city, and how that service provides lower wage employees that cannot afford a car a dependable means to get to and from work. It was noted that the East Side reserve-a-ride service is very reliable and that bus service as a whole is dependable.
- It was noted that nestle is a huge customer for a temp employment agency, which is served by the East Side Reserve-a-Ride service.

- Unique Industries is a company in Blairs that makes party favors (streamers, etc.). This is also a client for a temp agency, and they are often looking for employees. Blairs is outside of the Danville Transit service area. It was asked if it would be possible to provide service to this employer in Blairs. Shifts seem to be from 6:30 to 4:30.
- One of the problems observed by transit staff is that riders will often use a bus to get to work, but will find a ride to get home. Thus, there is lower productivity for those return trips in the afternoon. It was noted by participants that perhaps Danville Transit could charge a round trip fare as a means to capture revenues for the return trip.
- It was noted that Danville Transit should promote bus service and note the economic value of riding a bus (i.e., bus vs. driving vs. cab). There is a stigma associated with riding a bus, and marketing might help minimize that sigma.
- Fares were not perceived as an impediment to ridership. Current fares are perceived as being reasonable.
- Social agencies and temp employment agencies indicated a desire to continue to be informed of any upcoming service changes.
- It was asked if DRPT might have any grants or programs that would help fund regional service (i.e., service that goes outside of the City).
- It was also noted that there is a need to talk to the County about where industries are locating, to determine where there may be potential transit demands outside of the City.